KORONA
GROUP

CATALOGUE

Creating a platform of the reliability

www.korona.group

INTRODUCTION

The materials of industrial and construction chemistry are well known to professional and private consumers and fulfill a growing demand all over the world.

Silicone organic products have especially valuable features. Its high protective and decorative properties are due to low water absorption, high water vapor permeability, stability in wide temperature ranges and resistance to negative natural influences. Silicone organic materials best provide heat-, frost-, weather-resistant, resistance to corrosive environments.

Korona Group Corporation is an expert in silicone organic products, epoxy materials and other protective coatings. Company's activities are production and sales of chemicals for industrial and civil construction, chemical industry.

Established in 1999 production company "Korona Chim" (Ukraine) started protective coatings and hydrophobic agents manufacturing. By 2004 "Korona Chim" has become a leader at Ukrainian market of protective coatings and first export at European and Asian markets was made.

Trading companies and representative offices opened during years in Ukraine, Russia, Armenia, Iran, Turkey, Hungary. In 2012 production company "Unisil Hungary Kft." and the trade mark "UNISIL" were established in Hungary.

In 2015 the group of companies was reorganized into Korona Group Corporation with 4 plants, 15 offices, 350+ employees.

The corporation product list can be divided into 3 main groups: silicone organic materials, epoxy materials, alkyd and water-dispersion coatings (total about 300 items).

Our products are made by the best formulations matching the same quality level as of competitors' production and even exceeding it. The chemicals we supply have a wide range of applications.

For the construction sector and manufacturers of the building materials, we offer a whole range of hydrophobic liquids and emulsions for surface and volumetric treatment, epoxy materials, varnishes and paints. Our release agents are indispensable in metallurgy, mechanical engineering and machine tool industry, the manufacturing of tires and rubber products. For instrumentations, electronics, chemical and petroleum industries we supply silicone oil and antifoam agents.

Being environmentally friendly and safety, our products are the result of the interaction between nature and achievements in the field of chemistry.

Korona Group and Unisil systematic approach to management of our business and quality, ensuring the confidence that your needs as a consumer are clearly understood, agreed and satisfied, and the products consistently meet the requirements.

"Unisil Hungary Kft" manufacturing of the water-repellent liquids and emulsions, semi-finished products for pharmaceuticals and special compositions for the thermal insulating materials production deal in accordance with the standards for the Quality Management System ISO 9001: 2015, Environment management system ISO 14001:2015, Occupational health and safety management system OHSAS 18001:2007.

Our advantages are attractive prices and high quality of products, guaranteed by quality certificates. Our intelligent logistics policy enables delivery by various transports, in suitable packaging, and most importantly, on time. All this will help to strengthen your position in the market and lead to business success.

We offer time-proven high-quality materials. We are actively cooperating with European countries, developing relations with the CIS, the Middle East, and the far abroad.

The basis for successful cooperation with our partners are stable, long-term relationship as a result of mutually beneficial cooperation.

Every supply is accompanied by a full package of obligatorily technical documentation and approvals.

The company's technical department works closely with customers to meet their needs and solve issues. We are ready to provide services the competent technical advices on the application and features of all our products, and recommend how to find the most appropriate, as well as to inform about the products, upcoming to enter the market.

Upon customer requirements, we can arrange a visit of technologist to your facilities, and provide test samples of products and carry out the delivery of the goods to any destination of the world.

Today we are working to improve and explicate existing products, as well as develop new products to meet the needs of each individual production.

We managed to create the image of the reliable partner during our work, to gain high trust of consumers of products Korona Group offers.

KORONA GROUP

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** various products names are allowed for different markets*

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** various products names are allowed for different markets*

ETHYLSILICATE-40

FEATURES

Ethylsilicate-40 liquid is a mixture of tetraethoxysilane and polyethoxysiloxanes.

APPLICATIONS

Metallurgy

- For precision casting
- As a component of parting paints
- As a binder for the production of rods exposed to high temperatures

Building sector

- For the water proof building materials manufacturing
- Treatment of painted surfaces
- Impregnation of concrete to reduce the porosity
- For the silicosilicate production
- For the acid-resistant cement production

Paint and varnish industry

- As additives used in forming of fast-drying, thermo- and waterproof film with resistant gloss

Textile industry

- For shrink-proof finishing woolen cloths
- To reduce shrinkage of rugs and make them resistant to dust and decay
- As impregnating compound for filter cloths

Glass and ceramic industry

- For the enlightenment of optical glasses
- For the application of the light-scattering layer on the cylinders bulbs
- As a binding agent for the manufacture of ceramic materials, that are resistant to the highly corrosive environments and have the mechanical strength, heat resistance and high dielectric properties
- For the manufacturing of the highly resistant materials withstanding the temperature up to 1750°C and a load of above 127 kg/cm^3

PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND MEASURING UNIT	STANDARD
Optical density at a wavelength of 400 nm, max.	1,4
Optical density at a wavelength of 670 nm, max.	0,1
Mass content of hydrogen chloride, %, max.	0,3
Mass content of ethyl alcohol, %, max.	1,5
Mass content of tetra ethoxy silane, %	10 - 15
Mass content of silicon dioxide, %	38 - 42
Density at 20°C, g/cm^3	1,04 - 1,07
Duration of gelation, minutes	180 - 280
Freezing point temperature, °C, min	- 60

SAFETY INFORMATION

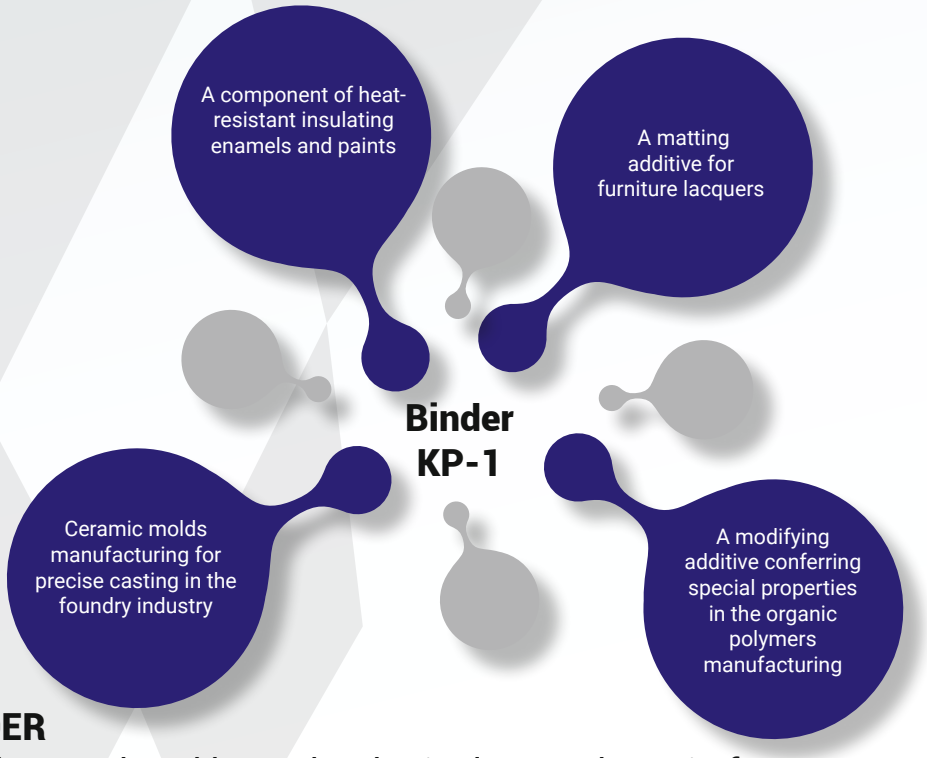
Low toxic, explosive and fire-hazardous product.

SHELF LIFE 12 MONTHS

BINDER KP-1

FEATURES
Product of the partial hydrolysis and polycondensation of polyesters of orthosilicic acid.

APPLICATIONS



APPLICATION ORDER
The application order regulated by technological procedures in force on customer's factory.

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND MEASURING UNIT	STANDARD
Appearance	Transparent or opalescent liquid
Mass content of hydrogen chloride, %, max.	0,07
Kinematic viscosity (20+0,5)°C, cSt	2,2-3,6
Duration of gelation, minutes, max.	30
Density at temperature (20+0,5)°C, g/cm^3	0,895-0,920
Mass fraction of silicium dioxide, %	17,0 – 21,0

SAFETY INFORMATION
The product is flammable. When operation, follow the rules of fire safety. It is recommended to use appropriate protective clothing, gloves and goggles or face protection. In case of contact with skin or eyes, rinse with a plenty of water and seek medical advice.

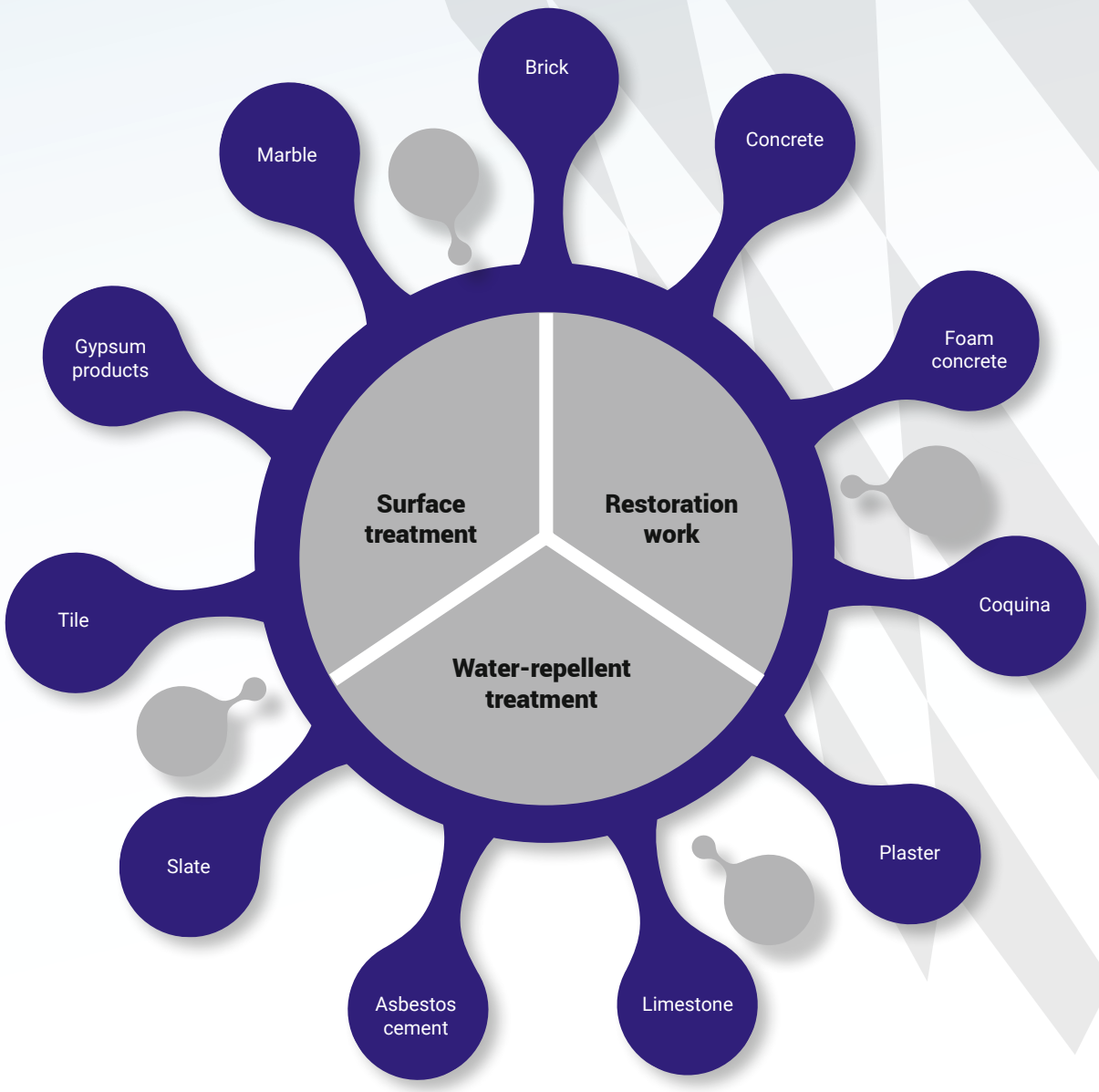
GUARANTEED SHELF LIFE 12 MONTHS
Store at temperature from -60°C to +30°C.

AQUAPROOF-3 (AKVAPROK-3)*

FEATURES

Aquaproof-3 is a product of hydrolysis and polycondensation of polyesters orthosilicic acid. It is a water-repellent agent for the constructing materials and decorative purposes.

APPLICATIONS



** various products names are allowed for different markets*

Advantages

- Provides preservation of the attractive appearance of new products and surfaces
- Strengthens friable weathered surface
- Restores the building materials original strength during the restoration works
- Imparts a deeper and more saturated color to stone
- Restores the construction materials base at the molecular level
- Penetrates deep into the material
- Keeps the constructing materials natural properties – vapor permeability and porosity
- Prevents the penetration of water, grease, oil and other contaminants into the materials structure
- Emphasizes the stone structure, which is becoming more lively and enlightened
- Increases the strength, wear resistance and durability of the constructing materials
- Creates the "wet stone" effect
- The impregnating composition is ready to use
- Indispensable in the restoration work to secure friable weathered natural stone with low content of binder
- Ensures long preservation of protective properties
- Depending on order, "Aquaproof-3" is made with a glossy or matte effect

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Transparent or opalescent liquid
Mass content of hydrogen chloride, % max.	0,07
Kinematic viscosity (20+0,5)°C, cSt	2,2-3,6
Duration of gelation, minutes, max.	30
Density at temperature (20,0+0,5)°C, g/cm^3	0,895-0,920
Mass fraction of silicium dioxide, %	17,0 – 21,0

SAFETY INFORMATION

The agent is non-toxic. Observe fire safety rules when working. It is recommended to use protective cloth, gloves and glasses or face protection means. In case of contact with skin or eyes rinse with a plenty of water and seek medical care.

GUARANTEED SHELF LIFE 12 MONTHS

Store at temperature from -40°C to +30°C.

** various products names are allowed for different markets*

PMS-5-1000

FEATURES

Polymethylsilicone liquids (PMS) are blend of polymers with linear and branched structure. PMS is known as silicone oils – the most effective substitute of mineral and synthetic oils in many industries.

TECHNICAL PROPERTIES

FLUID GRADE	FLASH POINT, °C	KINEMATIC VISCOSITY, cSt
PMS-5	min. 116	4,5 – 5,6
PMS-10	min. 172	9,2 – 10,8
PMS-20	min. 200	18 – 22
PMS-40	min. 200	36 – 44
PMS-50	min. 220	45 – 55
PMS-100	min. 305	95 – 105
PMS-200	min. 316	192 – 208
PMS-300	min. 310	290 – 310
PMS-400	min. 315	385 – 415
PMS-500	min. 316	480 – 520
PMS-1000	min. 310	950 – 1050

APPLICATIONS

PMS 5-10

- As damping liquids
- As thermal liquids (both low- and high- temperature) for instrumentation

PMS 20-40

- As damping, hydraulic, release liquids for instrumentation
- As a grease base

PMS 50-200

- As damping, hydraulic, release liquids
- As additives in polishing liquids and a variety of household chemical goods

PMS 300-400

- As a base of petrolatum paste
- Water-based emulsions of these fluids are used as release agents in production of general mechanical rubber goods, plastic goods, and rubbers
- Production of dielectric pastes and petroleum jellies
- For the treatment of glass tare
- As damping liquid

PMS 200A

- As foam inhibiting agent for petroleum oils and printing inks in printing industry as well
- As a release agent in tire industry

PMS 500-1000

- As damping liquid

PMS 100P

- As a base constituent of low-temperature greases, refrigerant, and low-temperature liquids for a variety of instrumentation

Fluids PMS-200, 300 and the emulsion on the base of PMS-400 are allowed to use in food industry.

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Kinematic viscosity (depending upon grade of fluid) at 20°C, cSt	4,5 – 1050
Open flash point (depending upon grade of fluid), °C	116 – 316
Freezing temperature (depending upon grade of fluid), °C	From -100 to -60
Boiling point 0,13-0,5 kPa residual pressure, °C:	
PMS 5-10	170 – 250
PMS 10-40	min. 250
PMS 50-1000	min. 300
Content of silicon (depending upon grade of fluid), %	35,5 – 38,5
Self-ignition temperature (depending upon grade of fluid),°C	330 – 400
Lower inflammation limits of vapor in air (depending upon grade of fluid), °C	128 – 214
Upper inflammation limits of vapor in air (depending upon grade of fluid), °C	256 – 297
Density at 20°C, g/cm^3	0,91 – 0,98
Density for liquids with viscosities > 200 cSt at minus 60°C, g/cm^3	1,03 – 1,04
Solubility in water, %, less than	0,2
Solubility in aromatic and chlorinated hydrocarbons, %	100
Solubility in spirit, acetone, %	full by PMS 5-10
Heat conductivity at 20°C, W/m x K	0,167

SAFETY INFORMATION

Polymethylsilicone fluids are inert, explosion-proof, produces no poisonous action to skin and conjunctiva.

GUARANTEED SHELF LIFE 60 MONTHS

SILICONE WATER-REPELLENT LIQUID SL 136-157M (GKZH 136-157M)*

FEATURES

Water-repellent agent for surface and volume treatment of the porous mineral materials. Liquid 136-157M is low viscosity colorless or pale yellow oligomethylhydridesiloxane polymer as oil. It dissolves in aromatic and chlorinated hydrocarbons, easily gelled by the action of amines, amino alcohols, strong acids and alkalis. Insoluble in water and lower alcohols.

APPLICATIONS

** various products names are allowed for different markets*

Advantages

- Provides natural ventilation of the buildings
- Preserves the appearance of the material
- Prevents the contamination of the textured layer
- Increases the coating life-time
- Prevents the decreasing of the heat-insulating properties of the material
- Ensures sustainability to ultraviolet rays and infrared
- Provides active protection against the weather influence (freezing and thawing, wetting and drying)
- Protects against the destructive action of mosses and lichens

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Mass fraction of active hydrogen, %	1,5-1,6
Kinematical viscosity at 20°C, cSt	10 – 80
The reaction of medium (pH of aqueous extract)	6 – 7
Water-repelling ability, h, min.	3

SAFETY INFORMATION

SL 136-157M (GKZH 136-157M) is nontoxic, explosion-proof, noncorrosive, it does not emit harmful vapors and gases, does not irritate the skin and mucous membranes of the eyes, physiologically harmless. SL 136-157M (GKZH 136-157M) is flammable.

GUARANTEED SHELF LIFE 12 MONTHS

STORAGE at closed warehouses, away from ignition sources, acids and alkalis.

** various products names are allowed for different markets*

SILICONE WATER-REPELLENT FLUIDS SL 90/10, SL 90/80, SL 90/99

FEATURES

SL 90/10 – The solution of octyltriethoxysilane diluted in an organic solvent with the catalyst, ready for use.
SL 90/80 – Concentrated solution of octyltriethoxysilane diluted in an organic solvent with the catalyst.
SL 90/99 – Concentrated octyltriethoxysilane free of solvent with the catalyst.

APPLICATIONS

Advantages

- Reduces the treated surfaces capillary water absorption
- Increases the resistance to frost
- Retains the materials thermal insulation properties
- Prevents the development of mold and moss
- Penetrates deeply into the pores and does not clog them
- The materials retain their natural properties – porosity and water vapor permeability, meaning they can "breathe"
- Possible to apply on damp surfaces
- Does not change the appearance of the treated material
- Prevents the efflorescence on brick masonry
- Enhances paint adhesion to the surface

CONSUMPTION 0,1-2,0 l/m^2 - depends on the porosity of the material to be treated and the application method.

SAFETY INFORMATION The product is flammable; please follow fire safety instructions during work.

GUARANTEED SHELF LIFE 12 MONTHS

STORAGE Keep in cool, dry, well ventilated place away from areas with a risk of fire, from oxidizing agents, acids, alkalis, and other substances having acidic or alkaline reaction. Protect from direct sunlight and moisture.

SILICONE WATER-REPELLENT LIQUIDS GKZH-11K (SL 11K); GKZH-11N (SL 11N)*

FEATURES

Water solution of sodium methylsiliconate GKZH-11N (SL 11N)* or potassium methylsiliconate GKZH-11K (SL 11K)*.

APPLICATIONS AND ADVANTAGES

Construction and buildig materials

- Surface and volumetric treatment
- For the treatment of brick, marble, travertine, concrete, asbestos cement, tile, concrete and gypsum products, and the other similar materials
- Increases the lifespan of the buildings and constructions
- Increases plasticity and final strength of concrete, plaster and screed
- Increases frost resistance, crack resistance and lightfastness
- Improves the overall insulating properties of the buildings
- Preserves the appearance the material, its permeability
- Protects against efflorescence occurrence
- Protects against the destructive action of mosses and lichens
- Maintains its original properties for at least 4-5 years and up to 15 years

Textile industry

- Imparts the excellent water repellency to the cloths
- Protects against efflorescence occurrence
- Impacts the material frost resistance
- Impacts the material corrosion resistance
- Impacts the material resistance to fading
- Impacts the material acid resistance
- Prevents the surface contamination
- Retains the material appearance, breathability
- Keeps gas and air permeability

Oil and gas extraction

- Modifierof the clay drilling agent
- Increases lubricity
- Reduces the water flow in the drilling fluid
- Reduces and stabilizes the viscosity of the drilling agent
- Increases drilling speed
- Increases the wells resource
- Reduces the water content in the crude oil

GKZH-11N PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD	
	Liquid GKZH-11N of grade B	Liquid GKZH-11N of grade V
Appearance and color	Liquid from colorless to light brown color. May be turbid.	Liquid from light yellow to brown
Density at temperature (20+0,5)°C, g/cm^3	1,17-1,30	1,14-1,30
Alkalinity in terms of NaOH, %	13-17	Not more than 17
Mass fraction of solids, %	25-35	23-33
Water-repellent ability	Passed the test	Passed the test

** various products names are allowed for different markets*

GKZH-11K PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD	
	Liquid GKZH-11K of grade B	Liquid GKZH-11K of grade V
Appearance	Transparent or slightly turbid liquid	Transparent or slightly turbid liquid
Density at temperature (20+0,5)°C, g/cm3	1,4±0,02	1,25-1,35
Alkalinity in terms of KOH, %	At least 23,8	19,5-22,5
Mass fraction of solids, %	At least 54,0	44,5-49,5
Water-repellent ability	Passed the test	Passed the test

Using GKZH-11K (SL 11K)* is more economical as it is more concentrated compared to the GKZH-11N (SL 11N)*. GKZH-11K (SL 11K)* consumption is 50% less.

SAFETY INFORMATION

Water-repellent liquids are non-toxic, fireproof, but it has alkaline properties. Work in rubber gloves, glasses, spray upwind, use the respirator.

GUARANTEED SHELF LIFE 12 MONTHS

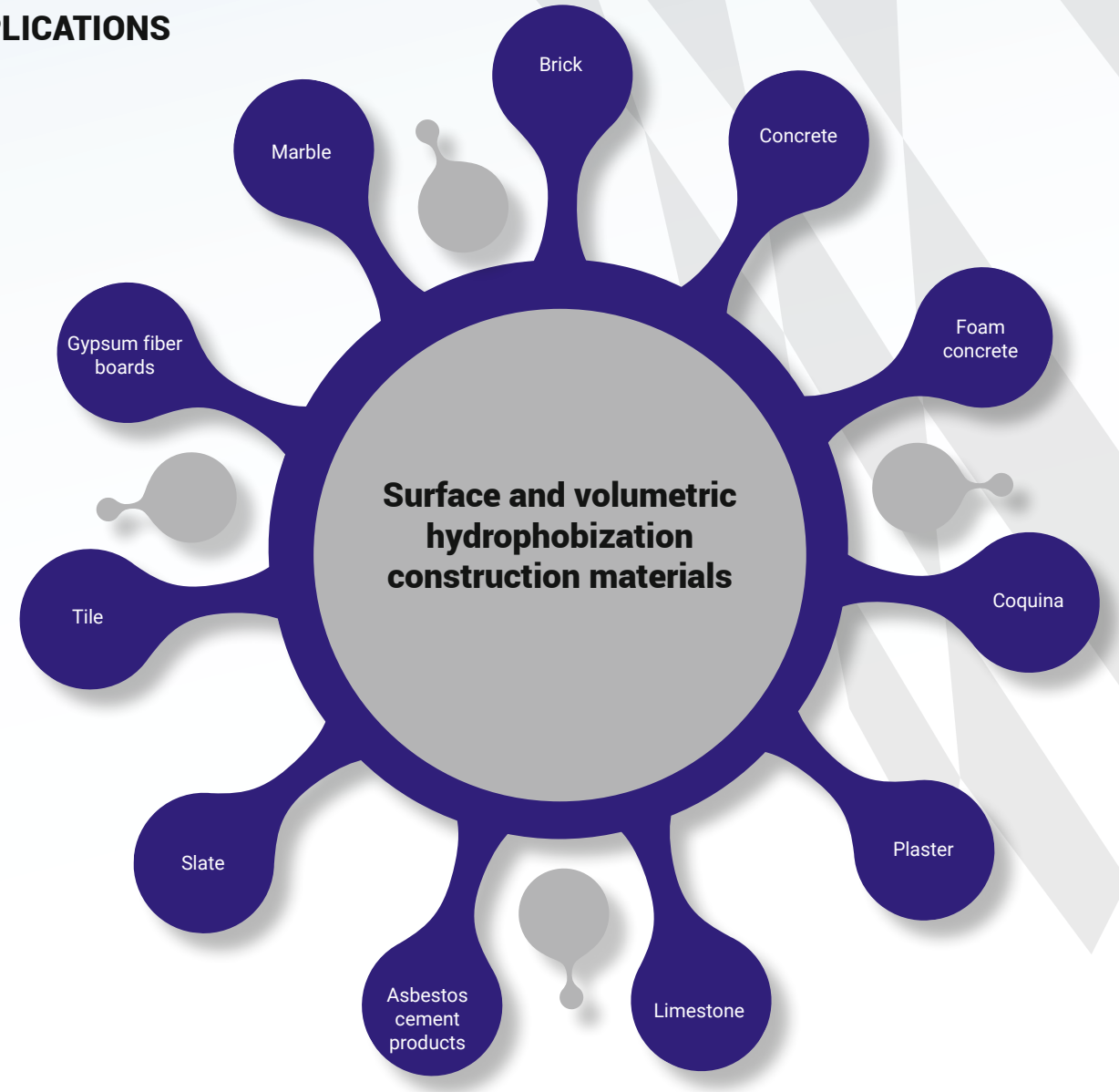
** various products names are allowed for different markets*

SILICONE WATER-REPELLENT AGENT AQUAPROOF-1 (AKVAPROK-1)* Standard / Concentrate / Superconcentrate

FEATURES

Water-repellent agent Aquaproof-1 – water solution of potassium methylsiliconate. Aquaproof-1 Standard is ready to use liquid. Aquaproof-1 Concentrate and Superconcentrate require dilution with water, depending on the tasks.

APPLICATIONS



** various products names are allowed for different markets*

Advantages

- Aquaproof-1 is a plasticizer of II, III, IV groups and air-entraining admixture preparing the concrete solutions
- Reduces the water absorption up to 1,5 times
- Provides natural ventilation of the buildings
- Preserves the appearance of the material
- Prevents the contamination of the textured layer
- Prolongs the service life of the buildings up to 3 – 5 times
- Prevents the decreasing of the heat-insulating properties of the material
- Ensures sustainability to ultraviolet rays and infrared
- Provides increasing the frost resistance of the buildings up to 2 – 3 times
- Provides increasing the corrosion resistance up to 1,5 – 2 times
- Protects against efflorescence occurrence
- Protects against the destructive action of mosses and lichens

PHYSICAL AND MECHANICALPROPERTIES

Description of property and measuring unit	Aquaproof Standard	Aquaproof Concentrate	Aquaproof Superconcentrate
Appearance	Transparent or slightly turbid liquid		
Density at temperature (20,0+0,5) °C, g/cm^3	1,02-1,035	1,07-1,1	1,19-1,24
Mass fraction of solids, %	3,0-5,0	11,5-14,0	28,5-32,5

MATERIAL CONSUMPTION FOR SURFACE TREATMENT

Consumption of working solution depends on porosity of treated material and it averages 350 ml per 1 m^2.

MATERIAL CONSUMPTION FOR VOLUME TREATMENT

When preparation of the building solutions and concrete Akvaprok-1 is to be introduced together with mixing water by weight of the binder – cement or lime in amount:

Aquaproof Standard	Aquaproof Concentrate	Aquaproof Superconcentrate
0,75-1,5 %	0,25-0,5 %	0,1-0,2 %

INFLICTION TECHNIQUES

Brush, roller or spray.

SAFETY INFORMATION

The agent is non-toxic, fire and explosion proof, but it has alkaline properties. When working, wear rubber gloves, goggles, spray from windward side, use respirator.

GUARANTEED SHELF LIFE 12 MONTHS

** various products names are allowed for different markets*

HYDROPROTECTIVE INJECTION MATERIALS
HYDROGUARD

FEATURES
Hydroguard is a ready to use solution, based on the hydrophobic silicone compounds for the water-repellency and silicification by injecting.

Injection waterproofing is a way of damp-course carried out by pumping specific products through the prepared holes in the ground, adjoined to the building constructions, constructions, or in the seams and cracks of constructions.

APPLICATIONS
The main objective of Hydroguard is the creation of a horizontal waterproofing barrier, performing old buildings repairing, if lime presents in the masonry composition.
Hydroguard used if necessary to achieve a termination of the water capillary rising damp in the concrete and masonry, through the creation of an internal hydrophobic effect and the restriction or overlapping capillary structure.
Such effect is reached through the lime interaction with a hydrophobic solution, thereby forming insoluble chemical compounds stopping capillary absorption.
Injection technology is well suited for the protection of the existing buildings and constructions from rising capillary moisture by creating a horizontal waterproofing.
The most common injuries that occur during repair of the buildings is damage of walls, basements and structural elements, which contact with the ground, by reason of moisture penetration.
The water in wet brick walls rises through the fine pores (capillaries) and cracks in buildings structural elements.
As a result of the horizontal waterproofing, water rising stops.

INJECTION WATERPROOFING IS EFFECTIVE IN THE NEXT CASES:
- Waterproofing of brick-made and concrete foundations, as well as the implementation of internal insulation to avoid the water capillary rising damp
- Insulation of walls, ceiling and floor in grounded constructions
- Concrete bearing walls strengthening
- Strengthening of the old dilapidated foundations
- Isolation of the construction joints and voids in reinforced concrete constructions
- Injection force elements during overhaul
- The bearing capacity restoration of concrete buildings, dilapidated foundations and underground premises
- Filling of the cracks, gaps and capillaries in order to eliminate the possibility of the moisture penetration in brick, concrete or stone constructions
- Repairing and waterproofing of expansion joints

INJECTION METHODS:

1. Pressure injection method. Pressure injection is recommended if the treated masonry is substantially or completely saturated with water. When applying thehydrophobic agent under pressure, the materials impregnation degree is up to 95%. When injected under pressure, the constructions processing time is significantly saved.

2. Injection without pressure. Water-repellent composition is supplied by gravity, without pressure. For this, 40° inclined to the surface drilled apertures are required.

CONSUMPTION

Min. 15 kg/m² of the wall cross-sectional area.

PROPERTIES

The horizontal waterproof barrier with Hydroguard can be used only in the absence of a water load, i.e. where there is no water outlet.

Traits and Advantages

- Provides moisture resistance of concrete constructions
- Provides durability and improves the quality of the constructions
- Strengthens the basements and creates a special strength of the treated constructions (foundations, walls)
- The extraordinary simplicity of the technology
- Fills all the existing gaps, cracks, holes and capillaries, and creates a waterproof, but elastic barrier when hardens
- Provides the ability to perform high-quality insulation of the construction, both in the basic building process, and when performing planned or emergency repairing
- Execution of work at any time of the year, regardless of the ambient temperature
- Significant savings in consumables and manpower
- Injection can be performed selectively, only in requiring isolation areas
- It is carried out without stopping the main works about constructings
- Eliminates ground excavations in the under the ground areas isolation
- Interacts with the main building material at the chemical level
- Quickly and easily penetrates into wet constructions of any thickness
- Keeping natural ventilation
- Increases resistance to the mechanical damages
- Does not cause corrosion of reinforcing steel

SAFETY INFORMATION

Avoid contact with skin and mucous membranes, inhalation of aerosol. Work in rubber gloves, goggles.

GUARANTEED SHELF LIFE 12 MONTHS

Storage only in the original, tightly closed and labeled container. Store containers tightly closed in a well ventilated place. Keep away from heat and direct sunlight.

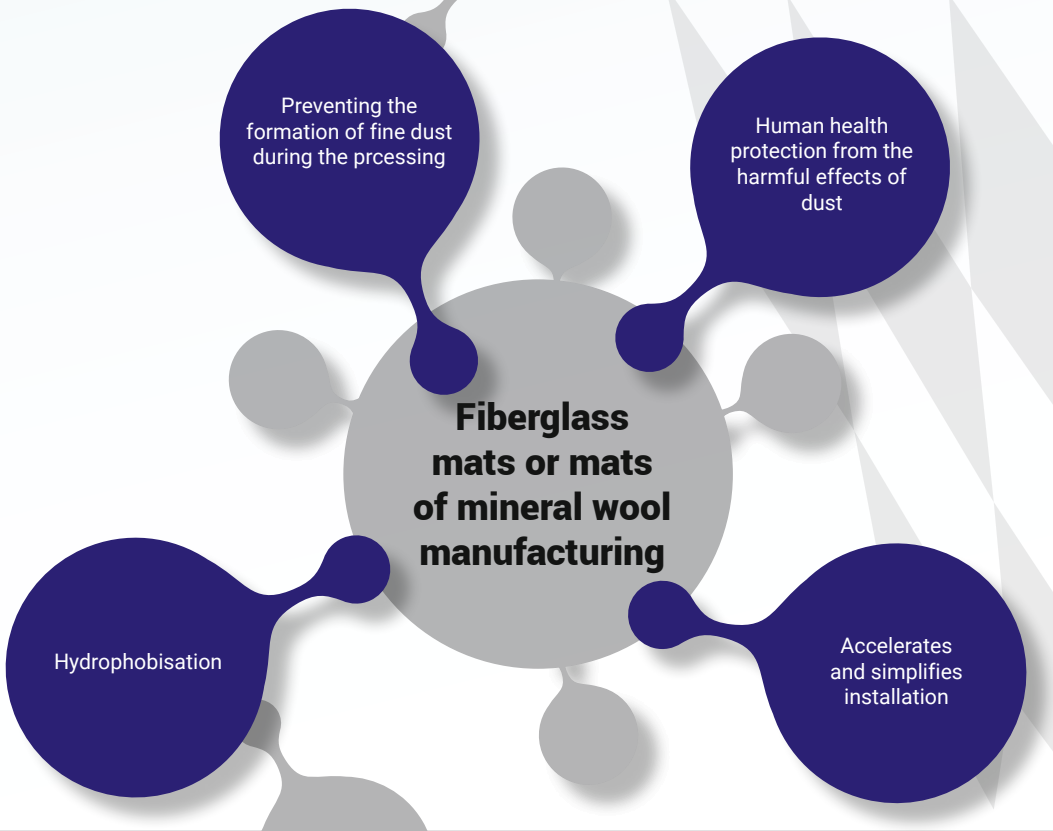
SILICONE EMULSION SE-50/12

FEATURES

Emulsion SE-50/12 – water emulsion of oligodimethylhydroxidesiloxane, designed for water-repellency treatment of various materials, including fiberglass and mineral wool products treated with phenol-formaldehyde resin.

APPLICATIONS AND ADVANTAGES

To prevent the formation of fine dust in the production of fiberglass mats or mats of mineral wool, use the emulsion SE-50/12 in combination with ME-50/42. Mixing ratio is 1 part by weight of emulsion SE-50/12 for 3-5 parts by weight of emulsion ME-50/42. In this case, a mixture of emulsions also mixed with a solution of phenol aldehyde resin and other additives.



To make fiberglass mats or mats of mineral wool water resistant, mix the emulsion SE-50/12 with a solution of phenol aldehyde resin and other additives.

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Homogeneous liquid without mechanical impurities. Color white.
Mass content of nonvolatile substances, %	min. 48
Funnel viscosity at temperature (20±2,0)°C, s	30 – 150
Stability on dilution, h	min. 24
Reaction of medium (pH 25% of water solution)	6,0 – 7,0
Mass content of silicium, %	18 – 22
Ignition point temperature, °C	Not presented
Closed flash point, °C	Not presented
Open flash point, °C	Not presented

COATING

The emulsion SE-50/12 or the mix of emulsions SE-50/12 and ME-50/42 is applied together with a binder by spraying method. The amount of the emulsion SE-50/12 or of the mix of emulsions SE-50/12 and ME-50/42 depends on the required water-repellency properties of the final product, so there is no general advice on how to use. The necessary amount can be determined after individual test. In most cases the introduction of at least 0,2% of the emulsion SE-50/12 or 0,6-1,2% of the mix of emulsions SE-50/12 and ME-50/42 from the weight of the dry fibrous material is enough.

ADDITIONAL INFORMATION

- Since the shelf life of various mixtures mainly depends on the composition of phenol aldehyde resins and additives, it is difficult to give any general advice on their compatibility.
- The emulsion SE-50/12 or the mix of emulsions SE-50/12 and ME-50/42 is used in combination with the binder.
- The treatment of fiber wool and mineral wool with the emulsion SE-50/12 or with the mix of emulsions SE-50/12 and ME-50/42 after drying and curing is not recommended.

SAFETY INFORMATION

The information on safety you can find in safety data sheet, provided by our sales department upon request.

STORAGE

Store at temperature from +5°C to +30°C in tightly closed containers of manufacturer in covered warehouses, protected from moisture, direct sunlight and away from heaters and tanks with strong oxidizing agents, alkalis and acids. The product application after the shelf life period expiration is enabled at the user's discretion, if the quality is checked to meet technical requirements of "Water repellency emulsions".

GUARANTEED SHELF LIFE 6 MONTHS

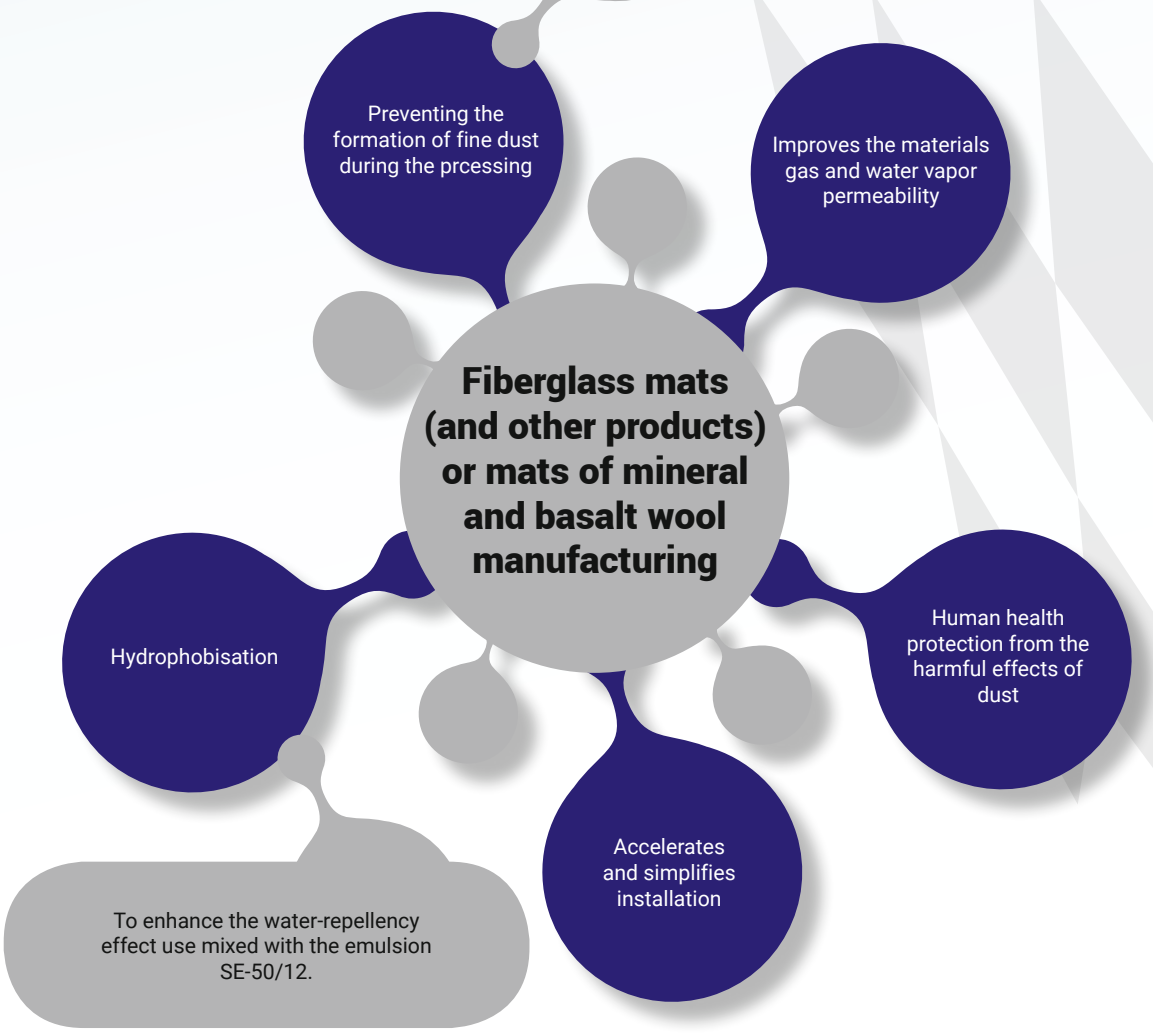
EMULSION ME-50/42 (OE-50/42)*

FEATURES

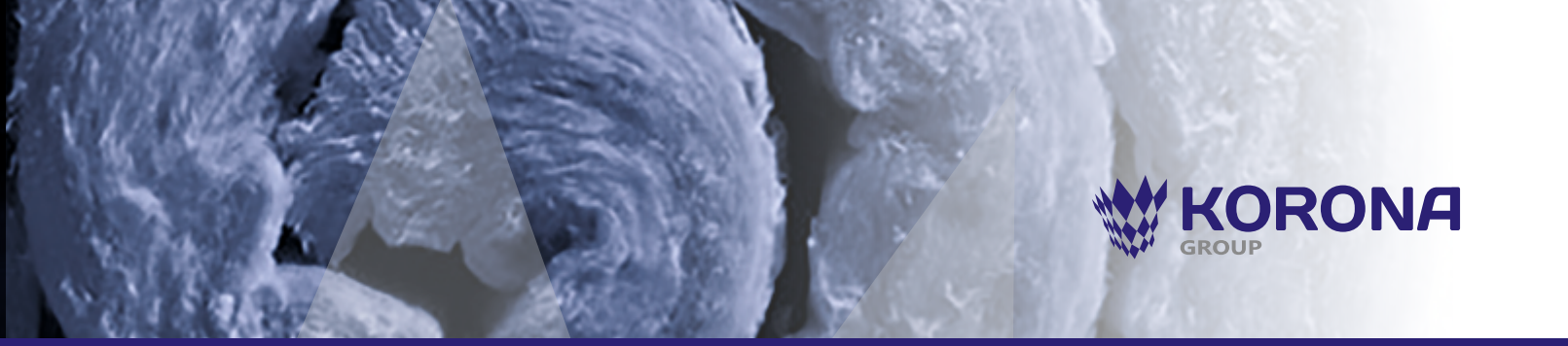
Emulsion ME-50/42 (OE-50/42)* – water emulsion of mineral oil, intended for dust removal and optional water repellent treatment of various materials, including fiberglass and mineral wool products treated with phenol-formaldehyde resin.

APPLICATIONS AND ADVANTAGES

To prevent the formation of fine dust in the production of fiberglass mats or mats of mineral wool, use the emulsion SE-50/12 in combination with ME-50/42. Mixing ratio is 1 part by weight of emulsion SE-50/12 for 3-5 parts by weight of emulsion ME-50/42. In this case, a mixture of emulsions also mixed with a solution of phenol aldehyde resin and other additives.



** various products names are allowed for different markets*



PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Homogeneous liquid without mechanical impurities. Color not specified.
Mass content of nonvolatile substances, %	min. 48
Funnel viscosity, at temperature (20±2,0)°C, s	30 – 150
Stability on dilution, h	min. 24
Ignition temperature, °C	not presented
Closed flash point, °C	not presented
Open flash point, °C	>288

COATING

The emulsion ME-50/42 is applied together with a binder by spraying method.
The amount of the emulsion ME-50/42 depends on the required water-repellency properties of the final product, so there is no general advice on how to use. The necessary amount can be determined after individual test. In most cases the introduction of 0,6-1,2% of the emulsion from the weight of the dry fibrous material is enough.

ADDITIONAL INFORMATION

- Since the shelf life of various mixtures mainly depends on the composition of phenol aldehyde resins and additives, it is difficult to give any general advice on their compatibility.
- The emulsion SE-50/12 or the mix of emulsions SE-50/12 and ME-50/42 are used in combination with the binder.

The treatment of fiber wool and mineral wool with the emulsion SE-50/12 or with the mix of emulsions SE-50/12 and ME-50/42 after drying and curing is not recommended.

SAFETY INFORMATION

The information on safety you can find in safety data sheet, provided by our sales department upon request.

STORAGE

- Store at temperature from +5°C to +40°C in tightly closed containers of manufacturer in covered warehouses, protected from moisture, direct sunlight and away from heaters and tanks with strong oxidizing agents, alkalis and acids.
- The product application after the shelf life period expiration is enabled at the user's discretion, if the quality is checked to meet technical requirements of "Water repellency emulsions".

GUARANTEED SHELF LIFE 6 MONTHS

SILICONE EMULSION MSE-50/43 (OSE-50/43)*

FEATURES

Emulsion MSE-50/43 (OSE-50/43)* – water emulsion of oligo dimethyl hydroxysiloxane and mineral oil. For dust removal and additional water-repellent treatment of various materials, including fiberglass and mineral wool products, processed with phenol-formaldehyde resin.

APPLICATIONS AND ADVANTAGES

** various products names are allowed for different markets*

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Homogeneous liquid without mechanical impurities. Color not specified.
Mass content of nonvolatile substances, %	min. 48
Funnel viscosity, s	30 – 150
Stability on dilution, h	min. 24
Ignition temperature, °C	not presented
Closed flash point, °C	not presented
Open flash point, °C	>285

COATING

The emulsion MSE-50/43 is applied together with a binder by spraying method. The amount of the emulsion MSE-50/43 depends on the required water-repellency properties of the final product, so there is no general advice on how to use. The necessary amount can be determined after individual test. In most cases the introduction of 0,6-1,2% of the emulsion from the weight of the dry fibrous material is enough

ADDITIONAL INFORMATION

- To prevent the formation of fine dust and make water resistant the fiberglass mats or mats of mineral wool mix the emulsion MSE-50/43 with a solution of phenol aldehyde resin and other additives. Since the shelf life of various mixtures depends on the composition of phenol aldehyde resins and additives, it is difficult to give any general advice on their compatibility.
- The emulsion MSE-50/43 is used in combination with the binder.
- The treatment of fiber wool and mineral wool with emulsion MSE-50/43 after drying and curing is not recommended.

SAFETY INFORMATION

The agent is non-toxic, fire and explosion proof, has little irritating action.
The information on safety you can find in safety data sheet, provided by our sales department upon request.

STORAGE

Store at temperature from +5°C to +40°C in tightly closed containers of manufacturer in covered warehouses, protected from moisture, direct sunlight and away from heaters and tanks with strong oxidizing agents, alkalis and acids.
The product application after the shelf life period expiration is enabled at the user's discretion, if the quality is checked to meet technical requirements of "Water repellency emulsions".

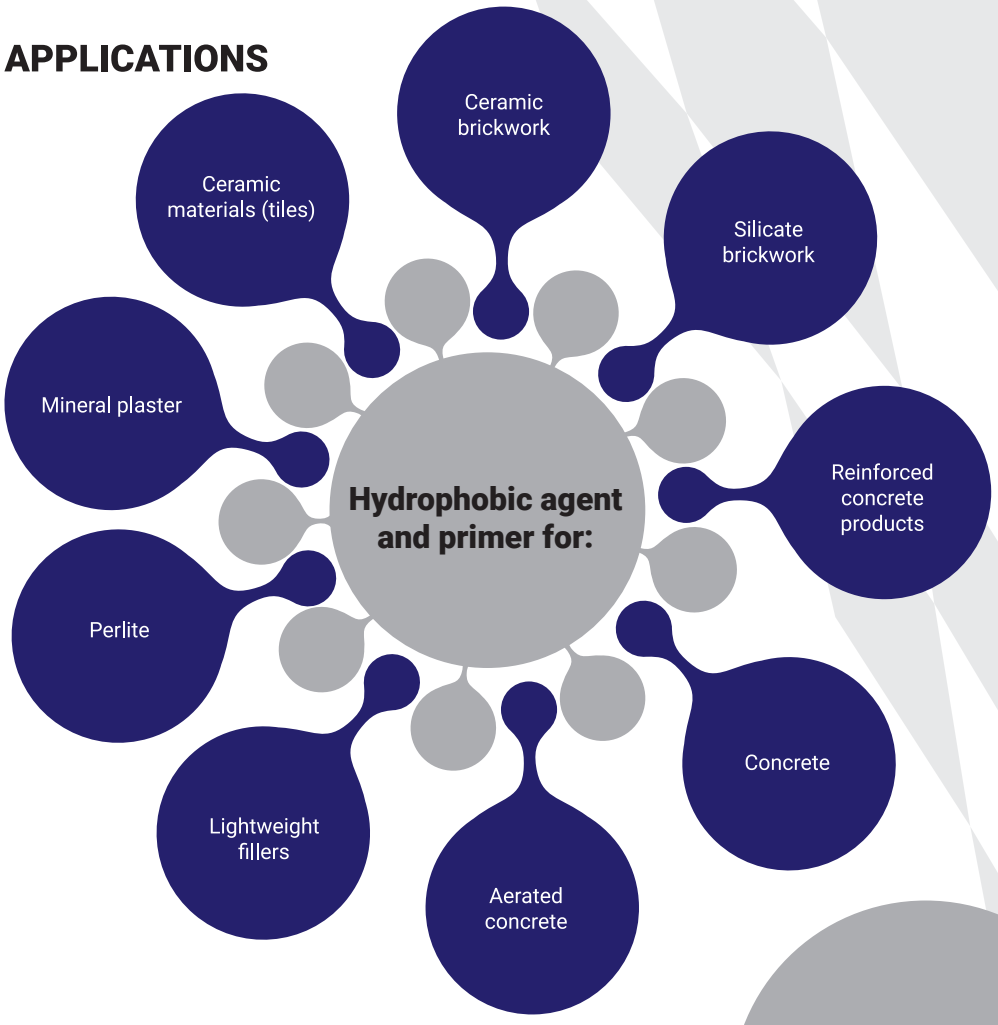
GUARANTEED SHELF LIFE 6 MONTHS

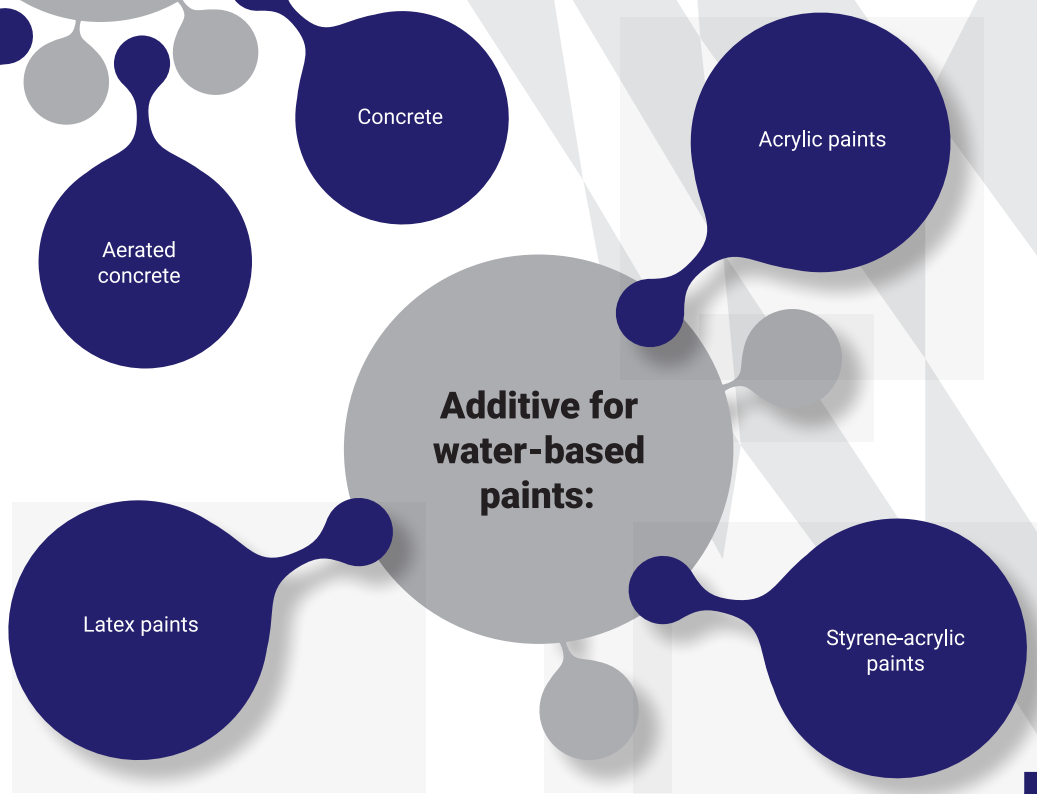
SILICONE EMULSION SE-50/53M

FEATURES

A water emulsion of silicone low molecular weight polymers with reactive end groups and functional groups of silicon atoms that does not contain solvents.

APPLICATIONS





Advantages of the hydrophobic properties

- After application, it reacts chemically with the reaction groups of the treated material and forms a durable protective water repellent coating chemically bonded to the treated surface
- The emulsion does not contain organic solvents and other environmentally harmful additives
- No hazardous chemicals are released during application
- Deep penetration into the pores of the treated material
- Application on a damp surface is possible
- Forms a durable protective coating chemically bonded to the treated material
- Retains the gas permeability of treated materials after application and drying of the coating
- Increases the weather resistance and durability of the protective coating

Advantages of the primer and paint additives properties

- When added to water based paint, the emulsion improves its spreadability, the appearance of the film and adhesion to the material
- Improves the paint properties
- Improves the technology of its application
- Improves the properties of the coating
- When used as an additive in paints, the emulsion SE-50/53M keeps the stability of the paint during storage
- Increases the weather resistance and durability of the protective coating

CONSUMPTION Using as a hydrophobic agent or a primer, the consumption rate depends on the porosity of the material to be treated and the application method, and can range from approximately 0,2 to 0,5 l/m^2 of the prepared working solution (dilute 1 liter of agent in 5-10 liters of water, depending on the absorbency and nature of the material to be treated).
Application as the additive to water based paints. The amount of emulsion to be added is determined by required properties of the end product, so no general advice can be given. To determine the required amount please provide tests for any particular case.

SAFETY INFORMATION The product is flammable; please follow fire safety instructions during the work.

GUARANTEED SHELF LIFE 12 MONTHS

STORAGE Store in tightly closed original container at temperature from +5°C to +30°C. Keep in dry, cool and well ventilated place. Prevent from direct sunlight and freezing. Store away from oxidizers, strong acids, alkalis and other chemicals having alkaline reaction.

SILICONE EMULSION KE 10-01 (SE 10-01)*

FEATURES

Emulsion KE 10-01 (SE 10-01)* – water emulsion of polydimethylsiloxane liquid of various concentrations. Product for protective and anti-adhesion treatment of metals, glass, rubber, plastic. Before use, blend it with water 1:10.

APPLICATIONS

** various products names are allowed for different markets*

Advantages

- Emulsion KE 10-01 is non-toxic, not flammable. It does not cause adverse psychological reactions. Application of the emulsion does not require special safety measures.
- Emulsion KE 10-01 is heat-resistant, it is applicable to a temperature of +200°C.
- It has a low fluidity and chemical inertness to construction materials.
- Emulsion KE 10-01 is economical, convenient and safe to handle.

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Mass content of silicium, %	10,5 – 28,0
pH of water extract	6,0 – 7,5
Surface tension, mN/cm, max.	40
Stability on dilution, h, min.	24

GUARANTEED SHELF LIFE 12 MONTHS

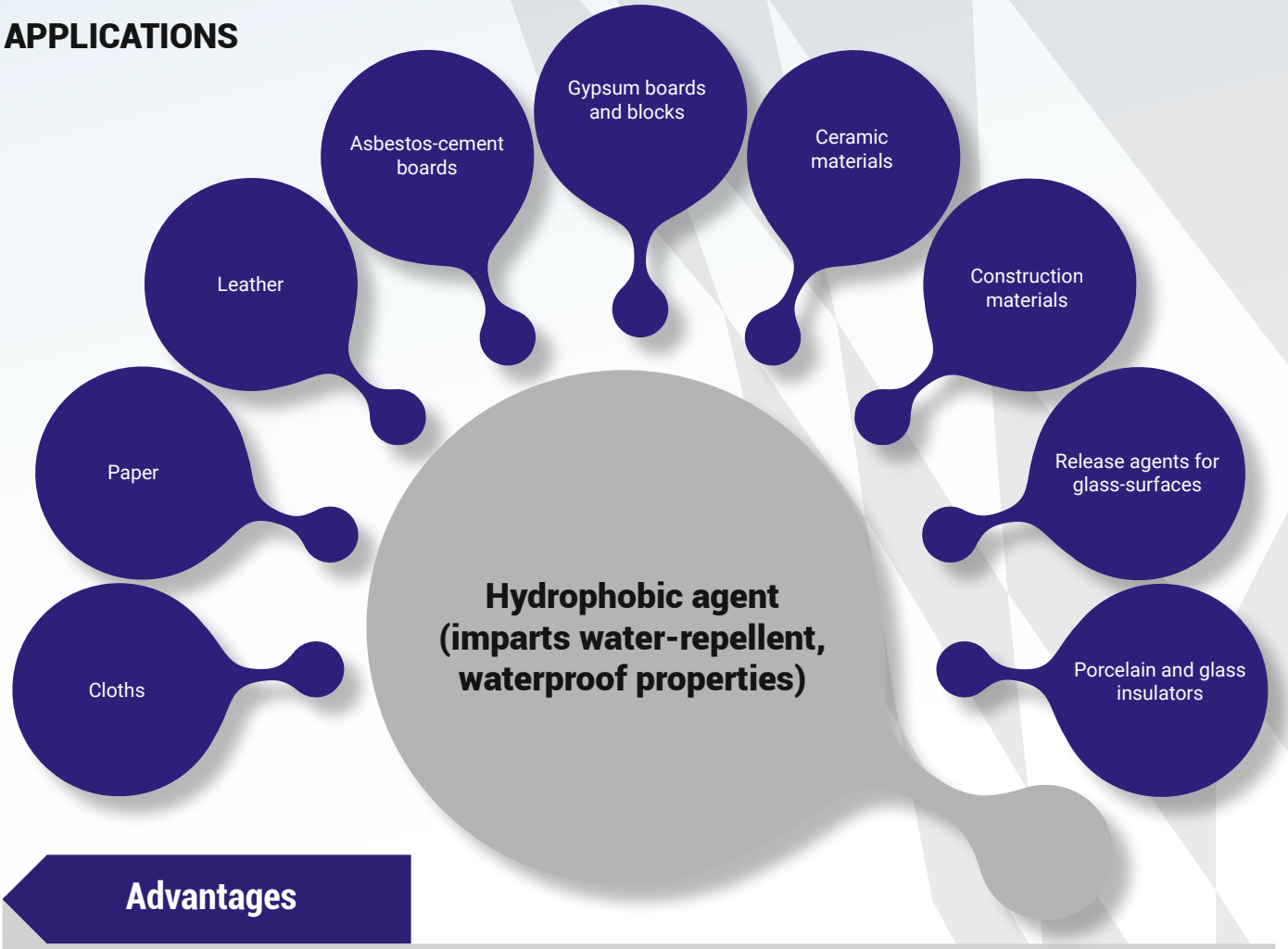
** various products names are allowed for different markets*

SILICONE EMULSION GKE 50-94M (SE 50-94M)*

FEATURES

Silicone emulsion GKE 50-94M (SE 50-94M)* is water emulsion of oligomethylhydridesiloxane, represents 50% emulsion of the Liquid 136-157M. Emulsion GKE 50-94M (SE 50-94M)* is water-repellent for surface and volume treatment of the porous mineral bases.

APPLICATIONS



Advantages

- Provides natural ventilation of the buildings
- Preserves the appearance of the material
- Provides active protection against the weather influence (freezing and thawing, wetting and drying)
- Prevents the contamination of the textured layer
- Increases the coating life-time
- Prevents the decreasing of the heat-insulating properties of the material
- Ensures sustainability to ultraviolet rays and infrared
- Protects against the destructive action of mosses and lichens

** various products names are allowed for different markets*

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Emulsion of white to light gray color
Water-repelling ability, h	min. 3,0
The ability to be diluted with water	passed the test
Density at temperature (25+0,5)°C, g/cm^3	0,980-1,020
Mass content of nonvolatile substanses, %	min. 50

INSTRUCTION FOR THE APPLICATION OF THE WATER-REPELLENT EMULSION GKE 50-94M (SE 50-94M)*

The treatment of the building constructions with water-repellent can be provided in two ways:

1. Volumetric treatment, i.e. – in the preparation of concrete, cement or plaster solutions (as an additive 1.5% by weight of the binder – cement or lime), that reduces their water absorption and permeability, increases the plasticity of solutions, the strength of plaster and screed, increases frost resistance of the concretes of normal hardening regardless to their composition and the type of binder.
Introduce the emulsion with mixing water or into already prepared composition if mixed at least 20 minutes.
The studies found that the optimal concentration (commercial product) of GKE 50-94M (SE 50-94M)* in concrete or cement solutions is 1,5% by weight of cement. This amount of emulsion allows a minimal water absorption and permeability of solutions.
The tests on the concrete F 200÷300 W 6 B – 15 with water-repellent emulsion GKE 50-94M (SE 50-94M)* proved that it is required to use 5,25 kg of emulsion GKE 50-94M (SE 50-94M)* for production of the sample volume 1 m^3.

2. Surface treatment – as a coating for protection of masonry, wallboard, cement and concrete ties, limestone, porous rock, slate, tile, plaster products.
For surface treatment, add one part of water emulsion GKE 50-94M (SE 50-94M)* to ten parts of water, stir and cover the surface with obtained composition until the stop of absorption, preventing drips and leaving drops. Apply the composition with a brush or paint sprayer. Repeat the treatment after drying (in 1-2 days).
The consumption of the working solution depends on the porosity of the material and it averages 350 ml per 1 m^2.
When the surface treatment protects the surface from mechanical damage, when the bulk treatment the emulsion GKE 50-94M (SE 50-94M)* is distributed throughout the entire thickness of the building material, resulting that mechanical damage to the upper layers do not affect the water-repellency of the lower layers.

SAFETY INFORMATION

Emulsion GKE 50-94M (SE 50-94M)* is physiologically harmless.

GUARANTEED SHELF LIFE 12 MONTHS

STORAGE

Closed warehouses, away from ignition sources, acids and alkalis.

** various products names are allowed for different markets*

SILICONE FACADE CLEANER CLEAN UP

FEATURES

Clean Up is a series of the facades cleaning agents.

APPLICATIONS

Clean Up – 1 is an acidic agent for cleaning the facades of brick, natural or artificial stone, concrete and plastered surfaces from salt deposits (efflorescence) of carbonate and sulfate origin, from atmospheric pollution.

CAUTION: Do not use for cleaning limestone, marble and metal surfaces. Unstable dyes destruction is possible.

Clean Up – 2 is an inert agent for cleaning the facades of brick, natural or artificial stone, concrete, limestone, marble and plastered surfaces from salt deposits (efflorescence) and atmospheric pollution (including metal surfaces).

Clean Up – 3 is an alkaline agent for cleaning the facades of brick, natural or artificial stone, concrete, limestone, marble and plastered surfaces from salt deposits (efflorescence) and atmospheric pollution.

CAUTION: Do not use for cleaning non-ferrous metals.

ADVICE: To protect the surface from the precipitation effects and the repeated efflorescences appearance, it is necessary to treat the facade surface with a "Aquaproof" hydrophobic agent.

CONSUMPTION 0,2-0,3 l/m^2 (or 1l of the agent for 3-5 m^2) in single-layer application. Dry surface applying only. Carry out works in dry weather conditions at temperatures from +5°C up to +35°C.

GUARANTEED SHELF LIFE 12 months

STORAGE Store and transport at a temperatures of -5°C up to +35°C, protecting against moisture and direct sunlight, far from heating devices, separate from acids. The agent's properties are preserved after freezing and thawing.

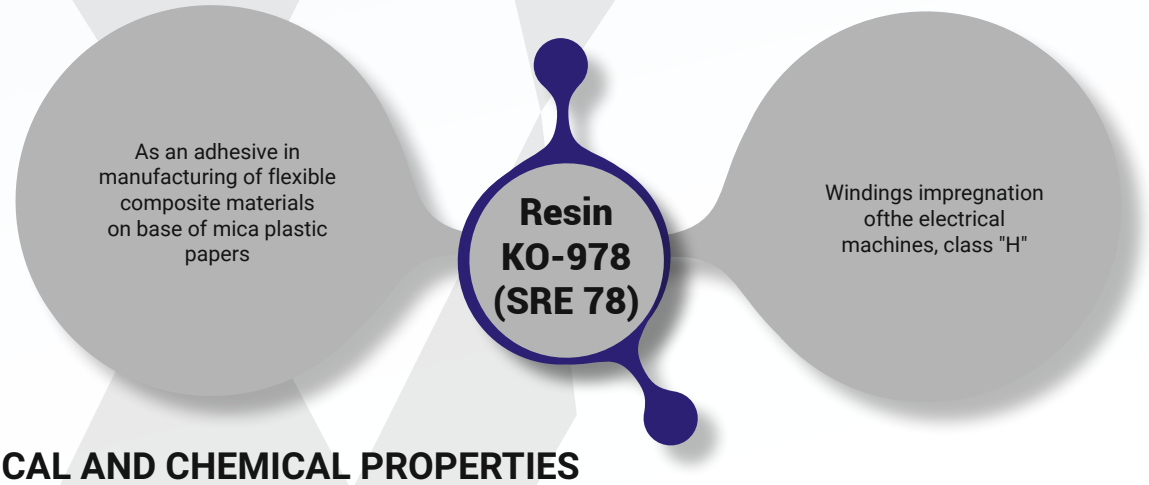
ELECTRIC INSULATING RESINS

ELECTRIC INSULATING RESIN KO-978 (SRE 78)*

FEATURES

Resin KO-978 (SRE 78)* is clear homogenous toluene solution of organopolysiloxane resin modified by organopolyalumosiloxane.

APPLICATIONS



PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD		
Mass content of nonvolatile substances, %	50 ± 1		
Funnel viscosity, s	16-25		
Dryout time, 3rd degree, 200°C, minutes, max.	30		
Jellification (150±2)°C, s	40-80		
Weight of Al, %	0,07 – 0,08		
Fixing capacity of varnish coat, N, min.	196		
Dielectric properties	Test conditions		
	R, M (15-35°C) 45-75%	R, M (180°C) <20%	24h (23°C) 93% M (15-35°C) 45-75%
Electric strength, MV/m, min.	60	35	35

SAFETY INFORMATION

The polymerized varnish coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 6 MONTHS

** various products names are allowed for different markets*

ELECTRIC INSULATING RESIN KO-915 (SRE 15)*

FEATURES

Solution of polyether resin-modified organopolysiloxane resin in toluene.

APPLICATIONS

** various products names are allowed for different markets*

Advantages

- High dielectric characteristics
- The high impregnational ability
- The minimum viscosity and low surface tension
- Fast drying ability of the lacquer film
- High adhesion to the metal surface
- Fixes well the separate windings and the winding layers and insulation
- Forms a glossy, hard and durable film
- High heat conductivity
- High moisture resistance
- Thermoelastic properties are maintained during long-term heating of the insulation in the electrical machines processing
- The high degree of corona resistance
- High thermal resistance (class H and higher)

SAFETY INFORMATION

The polymerized resin coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 6 MONTHS

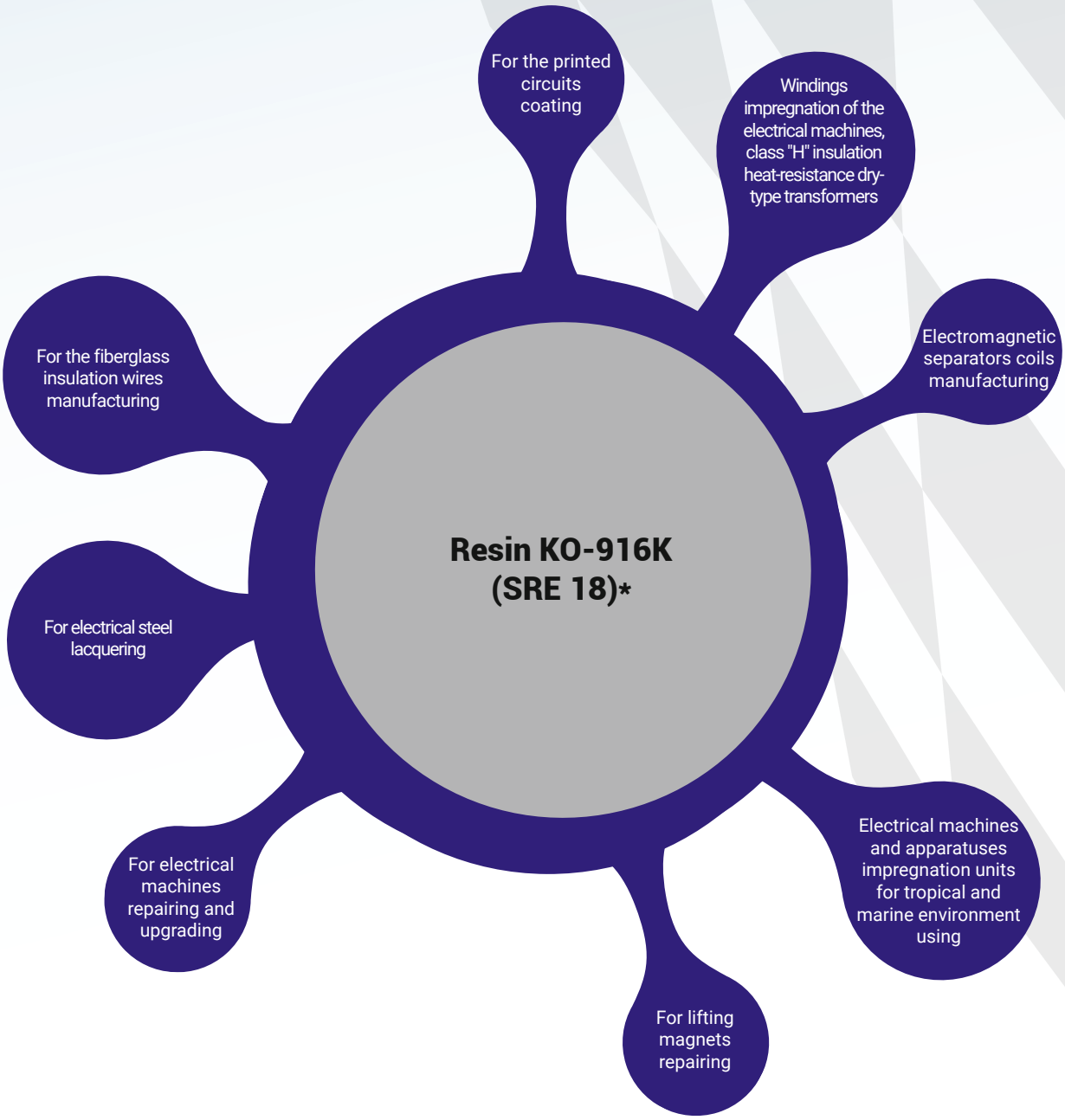
** various products names are allowed for different markets*

ELECTRIC INSULATING RESIN KO-916K (SRE 18)*

FEATURES

Resin KO-916K (SRE 18)* is homogenous clear solution of polyether-modified organopolysiloxane resin in organic solvents.

APPLICATIONS



** various products names are allowed for different markets*

Advantages

- The high impregnational ability
- The minimum viscosity and low surface tension
- Fast drying ability of the lacquer film
- High adhesion to the metal surface
- Fixes well the separate windings and the winding layers and insulation
- Forms a glossy, hard and durable film
- High heat conductivity
- No adverse effects on copper and enameled wire insulation
- High moisture resistance
- Thermoelastic properties are maintained during long-term heating of the insulation in the electrical machines processing
- High dielectric properties
- The high degree of corona resistance
- High thermal resistance (class H and higher)
- High adhesive capacity

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD		
Mass content of nonvolatile substances, %	66 ± 2		
Funnel viscosity, s	45-65		
Dryout time, 3rd degree, (200±5)°C, minutes, max.	15		
Thermoelasticity of the lacquers surface, (200 ± 5)°C, h, min.	50		
Optical density, max.	1,0		
Fixing capacity of varnish coat, 20°C, N, min.	294 (30)		
Dielectric properties	Test conditions		
	R,M(15-35°C) 45-75%	R,M(200°C) <20%	24h(23°C) 93% M(15-35°C) 45-75%
Resin coat volumeresistivity, Ohm×m, min.	$1,0\times10^{13}$	$1,6\times10^{10}$	$1,5\times10^{12}$
Electric strength MV/m, min.	75	50	50

SAFETY INFORMATION

The polymerized resin coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 6 MONTHS

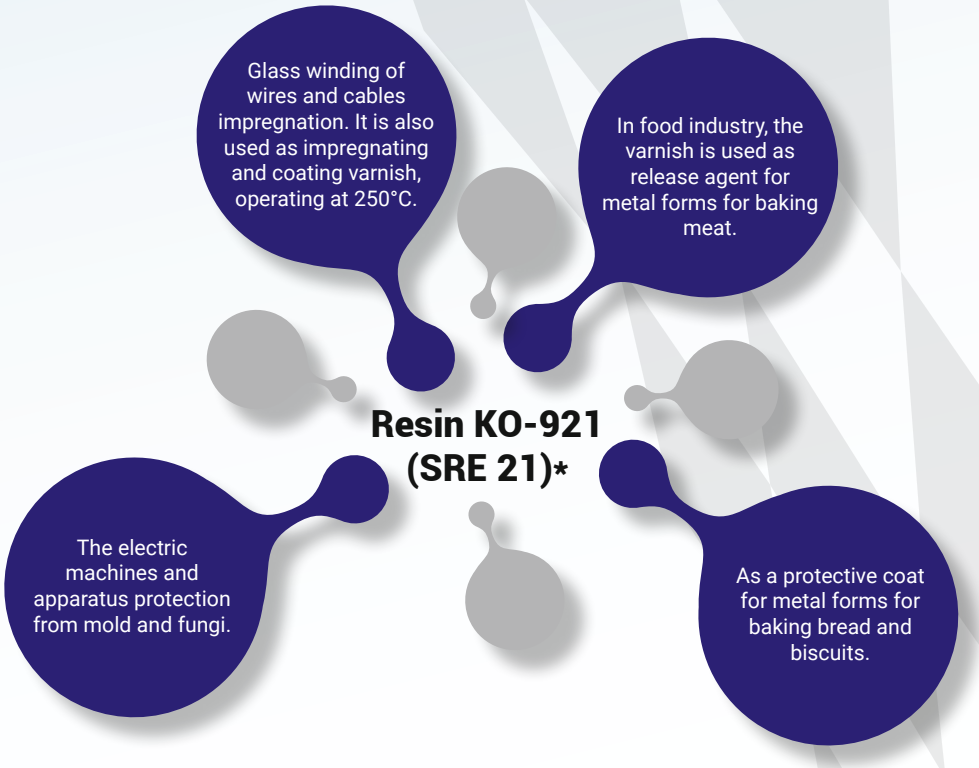
** various products names are allowed for different markets*

ELECTRIC INSULATING RESIN KO-921 (SRE 21)*

FEATURES

Resin KO-921 (SRE 21)* is a clear homogenous solution of polymethylphenylsiloxane resin in organic solvents. Polymethylphenylsiloxane resin is obtained by hydrolytic co-condensation of phenyltrichlorsilane and dimethyldichlorsilane with further polymerization.

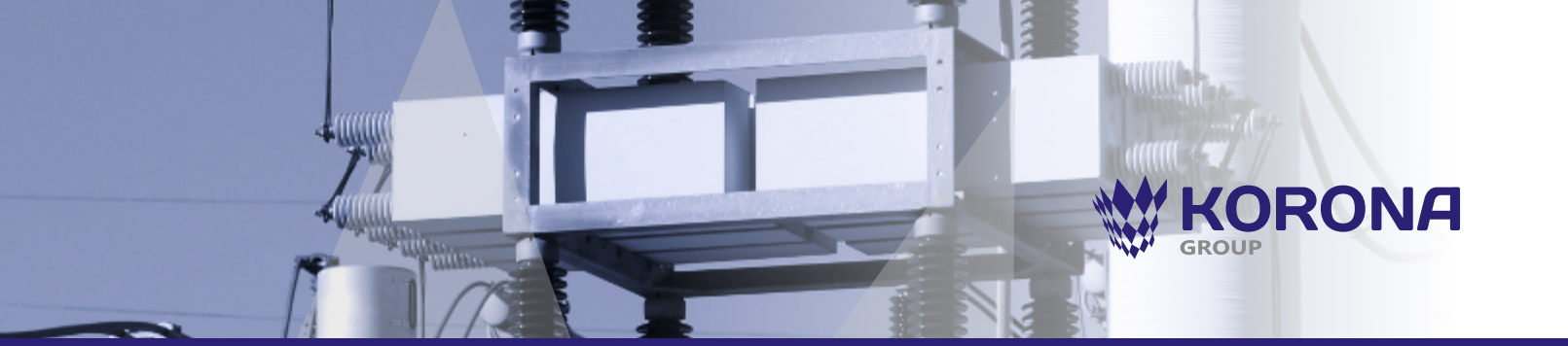
APPLICATIONS



Advantages

- Low drying temperature
- Good dielectric properties
- Good heat resistant (up to +250°C)
- Protects the electric machines and apparatus from mold and fungi
- Safe for food industry using (as a release coating for baking metal molds)

** various products names are allowed for different markets*



PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD		
Mass content of nonvolatile substances, %	50 ± 2		
Viscosity at 20°C, by viscometer VZ-246 with orifice Ø 4 mm, s	17-27		
Dryout time, 3rd degree, (200±5)°C, minutes, max.	15		
Weight of Si-bound hydrogen, %, max.	0,001		
Thermoelasticity at 200°C, h, min.	75		
Optical density, max.	0,5		
Dielectric properties	Test conditions		
	R,M (15-35°C) 45-75%	R,M (180°C) <20%	24h (20°C) 93%
Varnish coat volume resistivity, Ω•m, min.	$1,0\times10^{13}$	$1,0\times10^{10}$	$1,0\times10^{12}$
Electric strength, MV/m, min.	75	35	35

SAFETY INFORMATION

The polymerized varnish coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 12 MONTHS

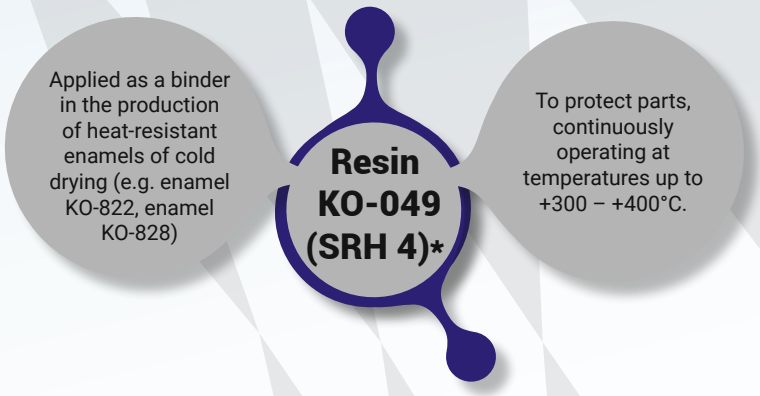
** various products names are allowed for different markets*

HEAT-RESISTANT RESINS

HEAT-RESISTANT RESIN KO-049 (SRH 4)*

FEATURES
Resin KO-049 is a solution of polymethylphenylsiloxane resin in xylol and toluene.

APPLICATIONS



Advantages

- It combines a good heat resistance and resistance to weather conditions
- Good compatibility with organic resins and enamels components
- Varnish film has a good benzine resistance
- The polymerized varnish coat is nontoxic, fire-safe

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Apperiance	clear liquid
Color	from yellow to brown
Funnel viscosity at (20±2)°C, s	13 – 24
Mass content of nonvolatile substances, %	53 ± 2
Acidity index, mg of KOH/g of varnish	max 1,0
Jellification at (200±3)°C, minutes	max 60
Varnish compatibility with the ethylcellulose solution	full

SAFETY INFORMATION
The product is flammable. Follow to fire safety regulations.

STORAGE
Store in a cool, dry, well-ventilated place, away from heaters. Protect from moisture and direct sunlight. Store in airtight containers at a temperature from -30°C to +35°C.

GUARANTEED SHELF LIFE 6 MONTHS

** various products names are allowed for different markets*

HEAT-RESISTANT RESIN KO-075 (SRH 7)*

FEATURES

Light-yellow to dark-brown transparent liquid, a solution of polyester-modified polymethylphenylsiloxane resin in toluene. The varnish features good oil resistance.

APPLICATIONS AND ADVANTAGES

Oilfields

- Protection of separators, gas traps with the fitting, cyclone settlers

Mechanical engineering

- Painting car radiators
- Other elements and equipment operating at +350 – +400°C for a long time

Corrosion prevention

- External surface of gas ducts, chlorinators
- Surface of steam and gas turbines, ejectors
- Different elements of agricultural machines
- Air drying apparatus
- Chemical catching equipment
- Coke-chemical equipment
- Internal surface of steam-water tanks operating at +150 – +160°C

Paint and varnish materials manufacturing

- Preparation of the heat-resistant enamel KO-835. The latter is prepared directly before use by mixing 94 parts by weight of the lacquer and 6 parts by weight of aluminium powder. The enamel is designed for parts operating at temperature of about +500°C
- Combination of the resin KO-075 (SRH 7)* with pentaphthalic (perchlorovinyl) nitrocellulose enamels provides improvement of the film strength, water-, heat- and light- resistance, water repellency, gloss and hardness
- Component of antiburning paints

Light industry

- Sizing and dressing of artificial fur
- Resistance improvement of protective clothing to attack by acids
- Impregnation of filter fabrics to increase serviceability, heat and wear resistance

Glass and glass-reinforced plastics manufacturing

- Release coating

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Mass content of nonvolatile substances, %	37 ± 3
Acidity index, mg of KOH/g of varnish	max 6,0

SAFETY INFORMATION

The polymerized lacquer coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 12 MONTHS

** various products names are allowed for different markets*

HEAT-RESISTANT RESIN KO-85 (SRH 8)*

FEATURES

Polyphenyldimethylsiloxane resin solution in toluene modified with solution of polybutenemeth-acrylic resin in a mixture of acetone, ethylacetate and butylacetate or xylol.

APPLICATIONS

** various products names are allowed for different markets*

Advantages

- Varnish has a high heat resistance (used for parts painting, continuously operating at +300°C – +350°C
- Increases the life-time of the coating
- Imparts gloss, shine, creates the "wet stone" effect
- The treated surfaces acquire increased resistance to the aggressive medium, petrol-resistant
- Provides monuments preservation
- Penetrates deeply into porous bases
- Resin KO-85 (SRH 8)* has a powerful strengthening effect
- Performs the function of a priming and coating, when applied in several layers
- Additionally, it may be coated with acrylic solventborne paints and organosilicone enamels (KO-168K, KO-5102K)
- Restores damaged paint coating
- Lacquering provides a durability to the mechanical loads
- Protects against water influence
- Provides resistance to the effects of atmosphere and weather conditions
- The treated surfaces demonstrate resistance to oils and lubricants

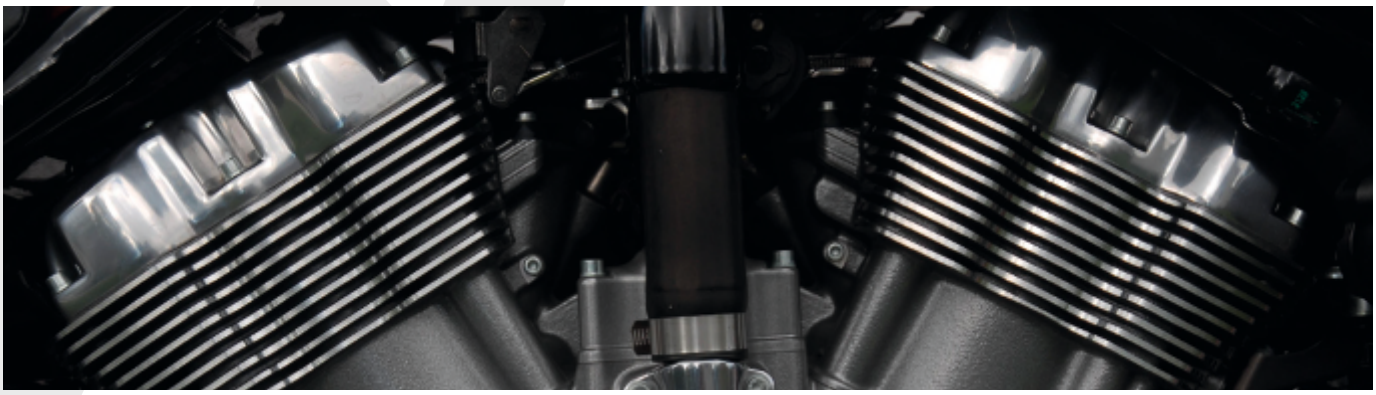
PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Funnel viscosity, s	12-17
Mass content of nonvolatile substances, %	15-17
Drying time of varnish film to degree 3 at temperature (20±5)°C, h, max	3
Acid index, mg of KOH/g of varnish	max 3

SAFETY INFORMATION

The polymerized lacquer coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 36 MONTHS



** various products names are allowed for different markets*

HEAT-RESISTANT RESIN KO-815 (SRH 9)*

FEATURES

Transparent liquid from light-yellow to brown color, the solution of polyphenylsiloxane resin modified with glyptal varnish in toluene or xylol.

APPLICATIONS

** various products names are allowed for different markets*

Advantages

- Resin has a high heat resistance (used for parts painting, continuously operating at -40°C – +500°C)
- Increases the life-time of the coating
- The treated surfaces acquire increased resistance to the aggressive medium, petrol-resistant
- Provides monuments preservation
- Penetrates deeply into porous bases
- Resin KO-815 (SRH 9)* has a powerful strengthening effect
- Performs the function of a priming and coating, when applied in several layers
- Additionally, it may be coated with acrylic solventborne paints and organosilicone enamels (KO-168K, KO-5102K)
- Restores damaged paint coating
- Lacquering provides a durability to the mechanical loads
- Protects against water influence
- Provides resistance to the effects of atmosphere and weather conditions
- The treated surfaces demonstrate resistance to oils and lubricants
- As a modifying additive to the alkyd, acrylic and others painting and varnishes, reduces drying time and increases the weatherability

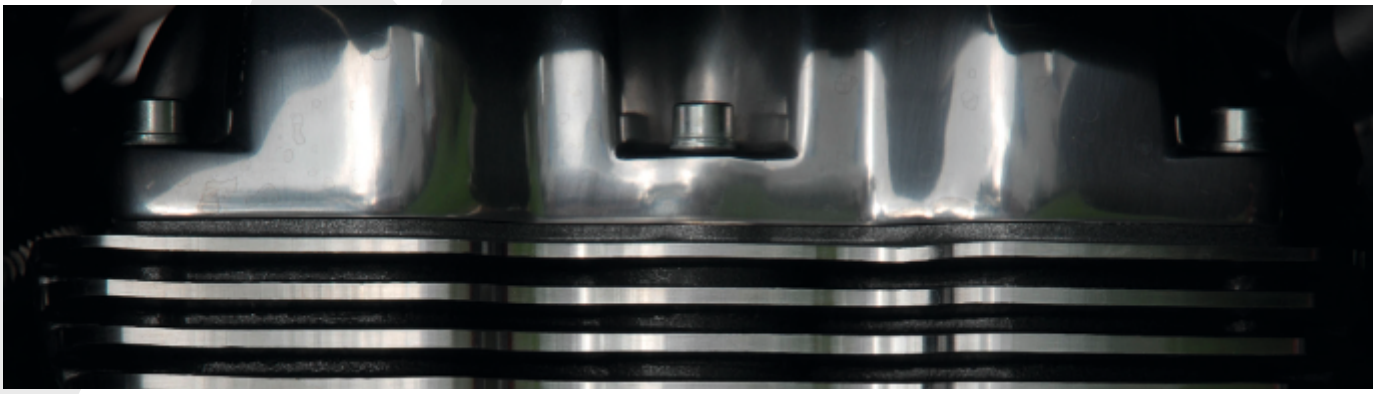
PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Funnel viscosity, s	10-13
Mass content of nonvolatile substances, %	33-37
Drying time of varnish film to degree 3 at temperature (20±5)°C, h, max	1
Acid index, mg of KOH/g of varnish	max 10

SAFETY INFORMATION

The polymerized lacquer coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 36 MONTHS



** various products names are allowed for different markets*

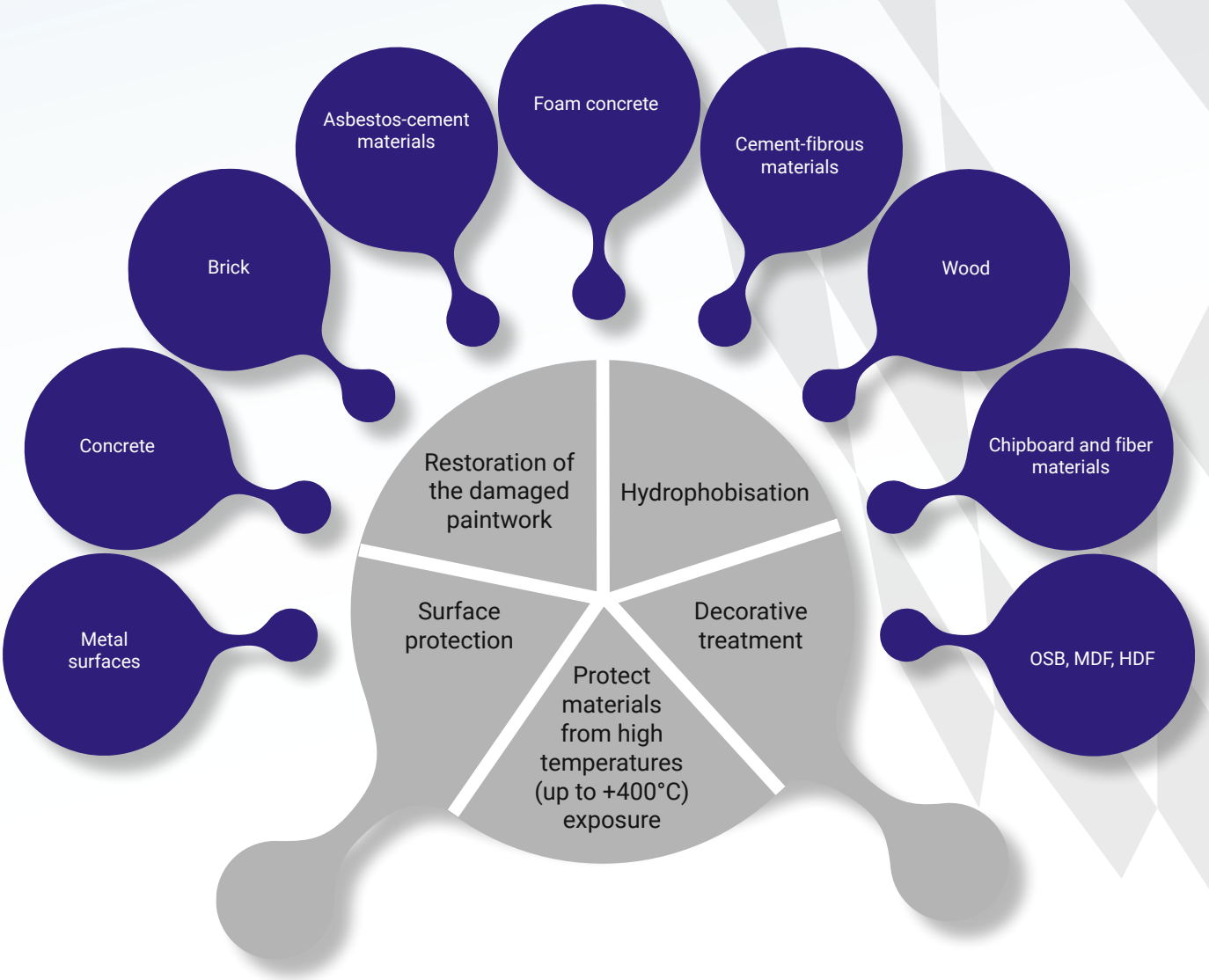
SILICONE ENAMELS

FACADE SILICONE ENAMEL KO-168K (FASAD SILICON)*

FEATURES

The suspension of pigments and fillers in a solution of organosilicon polymer resin in organic solvents, with the addition of special agents.

APPLICATIONS



** various products names are allowed for different markets*

Advantages

- Enamel imparts a water-repellency for painted surfaces
- Provides frost resistance
- Enamel is resistant to the sunlight action and weathering
- Enamel has fungicidal properties (prevents the formation of fungus and mold)
- Well proven in painting rooms with high moisture
- Protects surfaces aggressive media contacted, in particular, with the salt
- The coatings drying time at a temperature from +15°C to +35°C is no more than 20 hours (less than one day)
- Allowed to use for surfaces previously painted with oil, pentaphthalic or glyptal enamels, without removing the old layer, that have no blisters and delaminations

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Funnel viscosity, s, min.	40
Mass content of nonvolatile substances, %	55-75
Drying time of enamel coating, h, at temperature (25±10)°C, no more: to degree 1 to degree 3	 1 20
Bending elasticity of the coating, mm, max.	2
Coating impact strength, on the device U-1a, cm, min.	40
Coating adhesion, points, max.	2

COLOR

Wide color range is available. It is possible to select colors by RAL or customer sample.

APPLICATION METHODS

• With brush or roller
• By spraying

Dilute if necessary to required viscosity as follows: for industrial use – toluene, xylol, solvent or their mixture in any ratio; for domestic use – butyl acetate and white spirit, nefras-S4-155/200 in the ratio 3:1, ethyl acetate and white spirit, nefras-S4-155/200 in the ratio 3:1, white spirit/nefras-S4-155/200, solvent.

MATERIAL CONSUMPTION

• primer – 140-250 g/m^2 (depending on surface porosity)
• enamel – one layer from 150 g/m^2

SAFETY INFORMATION

The polymerized lacquer coat is nontoxic, fire-safe.

GUARANTEED SHELF LIFE 12 MONTHS

** various products names are allowed for different markets*

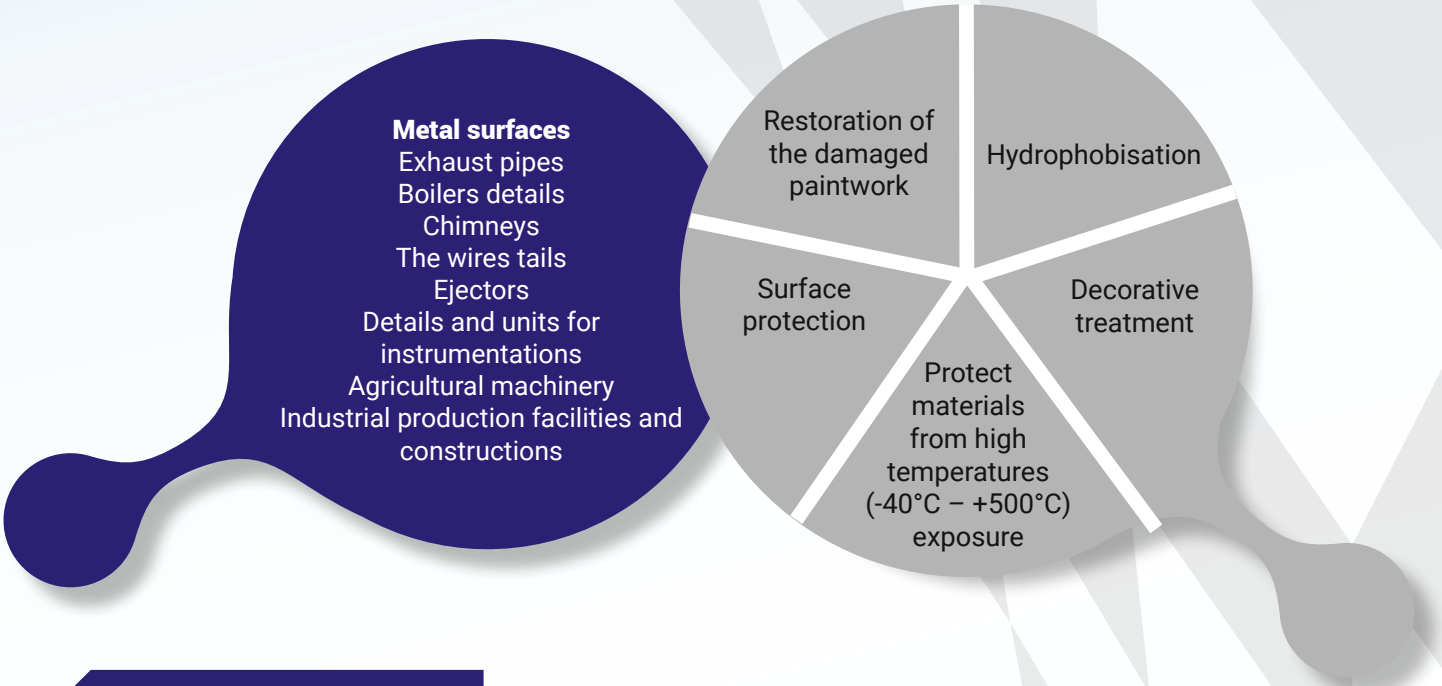
SILICONE HEAT-RESISTANT ENAMEL KO-813 (SEH 13)*

FEATURES

Two-component enamel composed of base (organosilicon heat-resistant resin KO-815 (SRH-9)* and filler (aluminium powder PAP-2).

APPLICATIONS

Painting of metal surfaces exposed to temperatures up to +500°C for a long time.



Advantages

- Enamel has a high heat resistance (used for parts painting, continuously operating at -40°C – +500°C)
- Increases the life-time of the coated surfaces
- The treated surfaces acquire increased resistance to the aggressive medium, petrol-resistant
- Penetrates deeply into porous bases
- Restores damaged paint coating
- Provides a durability to the mechanical loads
- Protects against water influence
- Provides resistance to the effects of atmosphere and weather conditions
- The treated surfaces demonstrate resistance to oils and lubricants

** various products names are allowed for different markets*

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Funnel viscosity, s	10-14
Drying time for coating at temperature (150±5)°C to degree 3, h, max.	2
Bending elasticity of coating, mm, max.	3
Coating impact strength by device U-1, cm, max. at temperature 20°C After heat treatment within 3 hours at temperature +450 – +500°C	 35 15
Resistance of coating to static action of water and gasoline, h, min.	24

ENAMEL PREPARATION

Immediately before use add the aluminium powder into the resin (in ratio 6 parts by weight of powder for 94 parts by weight of resin) and mix thoroughly.

SAFETY INFORMATION

The enamel film in cured state is not toxic and fireproof.

GUARANTEED SHELF LIFE 36 MONTHS

** various products names are allowed for different markets*

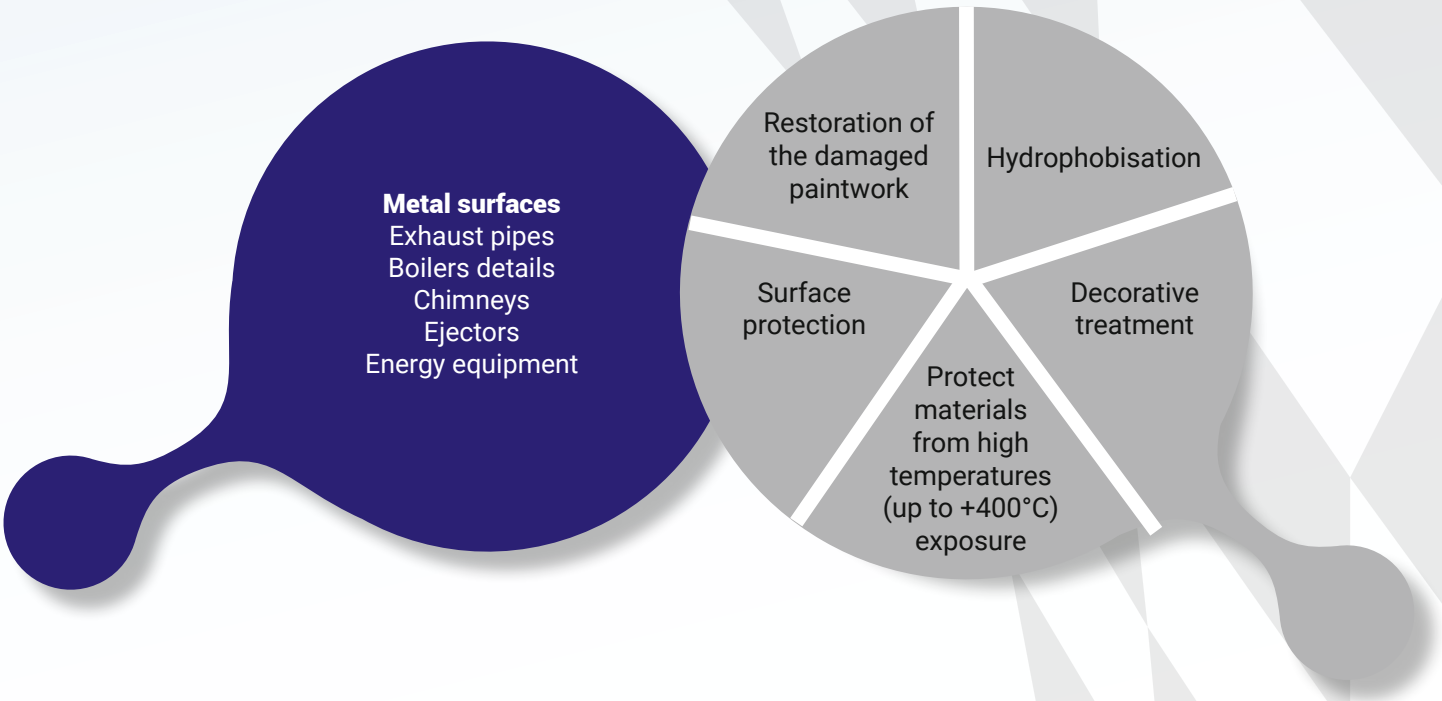
SILICONE HEAT-RESISTANT ENAMEL KO-814 (SEH 14, HEAT PROOF)*

FEATURES

Two-component enamel composed of base (organosilicon heat-resistant resin KO-85 (SRH 8)*) and filler (aluminium powder PAP-2).

APPLICATIONS

Painting of metal surfaces exposed to temperatures up to +400°C.



Advantages

- Enamel has a high heat resistance (used for parts painting, continuously operating at temperatures up to +400°C)
- Increases the life-time of the coated surfaces
- The enamel coated surface has a high resistance to the action of the salt mist
- Provides enhanced moisture resistance
- Provides a durability to the mechanical loads
- Restores damaged paint coating

** various products names are allowed for different markets*

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Funnel viscosity, s	12-18
Drying time for coating at temperature (20±5)°C to degree 3, h, max.	2
Coating impact strength by device U-1, cm, min.	
after heat treatment within 3 hours at temperature +330°C – +350°C	50
Resistance of coating to static action of water and gasoline, h, min.	24

ENAMEL PREPARATION

Immediately before use add the aluminium powder into the resin (in the ratio 5 parts by weight of powder for 100 parts by weight of resin) and mix thoroughly.

SAFETY INFORMATION

The enamel film in cured state is not toxic and fireproof.

GUARANTEED SHELF LIFE 36 MONTHS

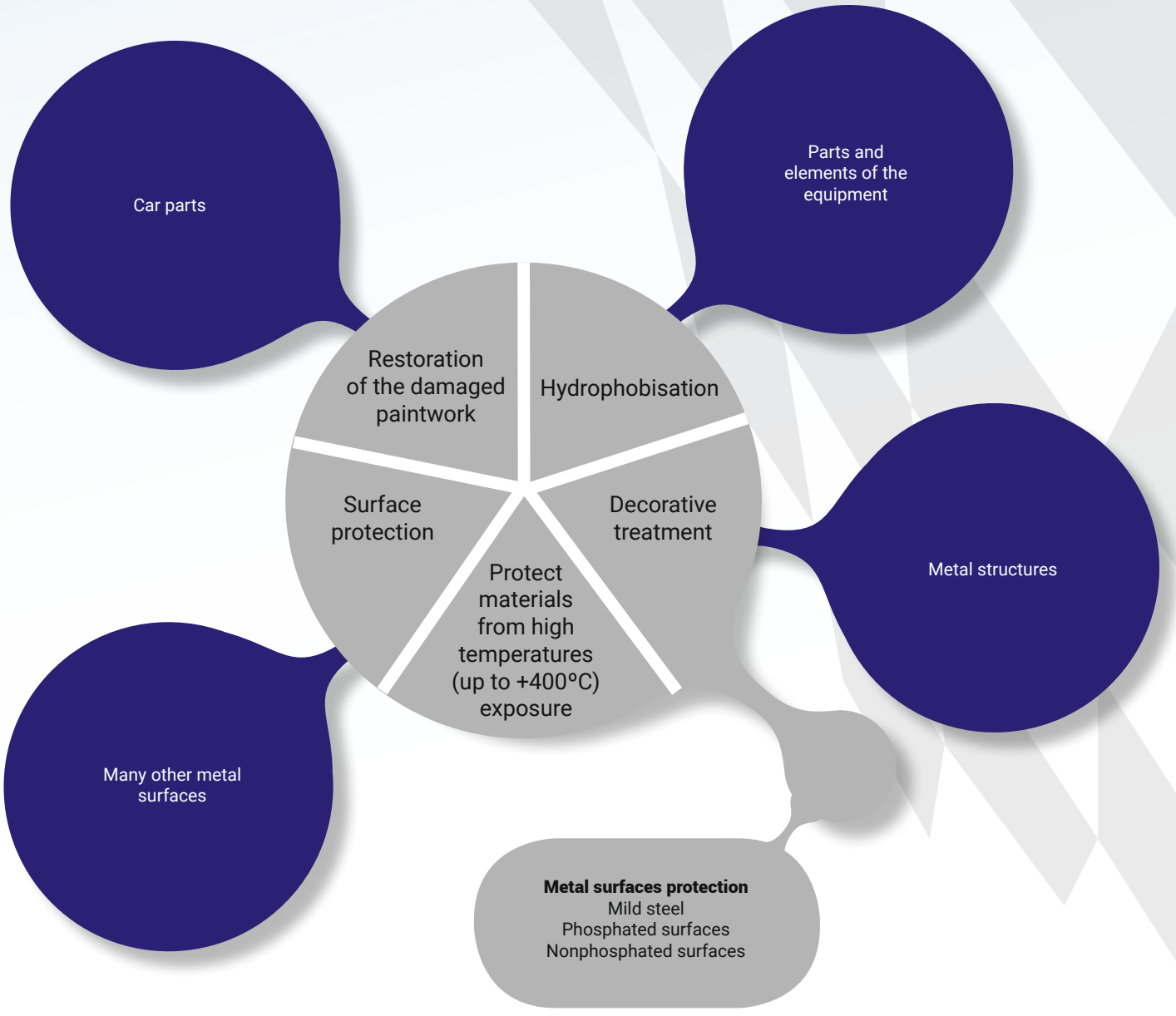
** various products names are allowed for different markets*

SILICONE HEAT-RESISTANT ENAMEL KO-828K (SEH 28)*

FEATURES

Suspension of aluminum powder in organosilicon heat-resistant resin KO-08K, an organic solvent and additives.

APPLICATIONS



** various products names are allowed for different markets*

Advantages

- Enamel has a high heat resistance (used for parts painting, continuously operating at temperatures (-40°C – +400°C)
- Increases the life-time of the coated surfaces
- The enamel coated surface has a high resistance to the action of the salt mist
- Provides enhanced moisture resistance
- Provides a durability to the mechanical loads
- Restores damaged paint coating

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance of enamel coating	Homogeneous smooth surface
Funnel viscosity, s	17-45
Mass fraction of solids, %	52-58
Drying time at temperature (130±2)°C to degree 3, minutes, max.	30
Coating adhesion, points, max.	2
Film hardness by pendulum TML (pendulum A), relative units, min.	0,10
Volume resistivity of the film, Ohm * m, min.	$1*10^6$
Moisture resistance of coating, h	min. 150
Heat resistance, °C	min. 400
Resistance to alternating exposure to heat and water, cycles	min. 5

COLOR
Silver

MATERIAL CONSUMPTION
One layer from 120 g/m^2.

SAFETY INFORMATION
The enamel film in cured state is not toxic and fireproof.

GUARANTEED SHELF LIFE 12 MONTHS

** various products names are allowed for different markets*

ENAMEL PF-101K

FEATURES
The suspension of pigments and fillers in alkyd varnish, modified with silicone.

APPLICATIONS
For external and internal surfaces of brick, concrete, cement, asbestos, wood and metal products in the construction of housing, industrial buildings and in the industry. The enamel has high frost, moisture resistance, resistance to direct sunlight; it is well proved for use in buildings with high humidity as the modification with silicone prevents the growth of microorganisms and mildew.

COLOUR Wide color range is available. It is possible to select colors by RAL or customer sample.

COATING Apply the enamel on primed or not primed surface. The recommended primer coats are alkyd GF-021 or PF-020.

APPLICATION METHODS
- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION Material consumption on the primed flat surface – one layer from 120 g/m^2.

SAFETY INFORMATION The enamel film in cured state is not toxic.

GUARANTEED SHELF LIFE 12 MONTHS

ENAMEL PF-115K (SILICA)*

FEATURES
The suspension of pigments and fillers in alkyd varnish, modified with silicone.

APPLICATIONS
For protective and decorative coatings in the home, construction and industry of interior and exterior surfaces of metal and wood products, brick, concrete, cement, asbestos, pre-cleaned and degreased. The coating has high performance characteristics – excellent weather resistance, frost, moisture resistance, resistance to direct sunlight.

COLOUR Wide color range is available. It is possible to select colors by RAL or customer sample.

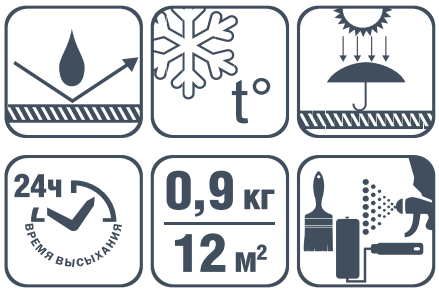
COATING Apply the enamel on primed or not primed surface. The recommended primer coats are alkyd GF-021 or PF-020.

APPLICATION METHODS
- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION Material consumption on the primed flat surface – one layer from 100 g/m^2.

SAFETY INFORMATION The enamel film in cured state is not toxic.

GUARANTEED SHELF LIFE 24 MONTHS



** various products names are allowed for different markets*

PRIMER COAT GF-021 (PRIME COATING)*

FEATURES
The suspension of pigments and fillers in alkyd varnish with the addition of solvents, drier and stabilizer.

APPLICATIONS
Intended for priming metal and wood surfaces for coating various enamels, characterized by two possible modes of drying; the film formed with primer coating is resistant to temperature fluctuations from -45°C to +60°C.

COLOUR Red-brown.

APPLICATION METHODS
- with brush;
- by jet low coating;
- by dipping;
- by spraying.

CONSUMPTION 60-100 g/m².

SAFETY INFORMATION The cured primer coating is not toxic and fireproof.

GUARANTEED SHELF LIFE 24 MONTHS

** various products names are allowed for different markets*

ENAMEL RUST STOP 3 IN 1

FEATURES
Suspension of pigments and fillers in a solution of alkyd-urethane resins in a mixture of organic solvents with functional additives.

APPLICATIONS
For the clean and rusted (the thickness of firmly bound rust up to 100 microns) metal surfaces covering indoors and outdoors.
Enamel is quick-drying - drying time 3 hours.
After drying, a hard wear-resistant anticorrosion coating, strongly bonded to the substrate is formed. Covering is resistant to the environmental conditions. The coating is resistant to temperature fluctuations from -50°C up to +60°C.

DRYING TIME 2 hours

COLOURS white, gray, brown, black, green

APPLICATION METHODS
- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION 90 g/m^2.

GUARANTEED SHELF LIFE 18 MONTHS

ENAMEL UNISIL DECOR

FEATURES

A solution of alkyd-urethane resin in a mixture of organic solvents with the addition of functional additives, pigments and fillers. Enamel is an improved analogue of PF-series enamels.
UNISIL DECOR is produced in 2 decorative effects versions: with the effect of “forging”, and “hammer” effect.

APPLICATIONS

Enamels are designed for repair works to create protective and decorative coatings on metal surfaces indoors and outdoors residential spaces, public and industrial buildings and constructions, as well as for painting parts of cars, equipment, metal structures and other products made of steel that do not have contact with food products and drinking water.
The coating has increased hardness, wear- and weather-resistance, and has a short drying time.

DRYING TIME Drying time to grade III is up to 6 hours.

APPLICATION METHODS

- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION 80-150 g/m^2.

GUARANTEED SHELF LIFE 12 MONTHS

PARQUET LACQUER UNISIL PARQUET

FEATURES
A solution of alkyd-urethane resin in a mixture of organic solvents with functional additives.

APPLICATIONS
For the wooden surfaces inside the premises, subjected to intensive mechanical influences lacquering (parquet, stairs, plank floor, furniture).
After drying, the solid, elastic, wear-, water- and detergent-resistant coating, strongly bonded to the substrate is formed.

DRYING TIME Lacquer is fast-drying. Drying time to grade III is 4 hours.

APPLICATION METHODS
- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION 80-100 g/m^2.

GUARANTEED SHELF LIFE 18 MONTHS

YACHT LACQUER UNISIL YACHT

FEATURES
A solution of alkyd-urethane resin in a mixture of organic solvents with functional additives. Contains the components that slow the wood aging (yellowing), which appears under the sunlight (UV radiation) influence.

APPLICATIONS
For wooden and metal surfaces exposed to intensive mechanical influences outdoors and indoors (boats, furniture and floor). After drying, the solid, elastic, wear-, water- and detergent-resistant coating, strongly bonded to the substrate is formed.

DRYING TIME Lacquer is fast-drying. Drying time to grade III is 4 hours.

APPLICATION METHODS
- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION 80-100 g/m^2.

GUARANTEED SHELF LIFE 18 MONTHS

WATER-DISPERSED PAINTS VD-AK-111; VD-KCH-183

FEATURES

VD-AK-111 based on copolymer acrylate dispersion. Drying time to degree 3 at a temperature of +18°C – +22°C – max 12 hours.
VD-KCH-183 based on water dispersions of synthetic polymers. Drying time to degree 3 at a temperature of +18°C – +22°C - max 24 hours.

APPLICATIONS

- The paint is designed for interior and exterior painting of buildings and structures on brick, concrete, plastered, wood and other porous surfaces (except floors) on the primed surface of the metal, old coatings.
- The coating has a smooth uniform matte surface. Produced fully ready for use.

Resistant to mild wet wiping.

COLOUR White. White paint can be diluted with water based pigments.

COATING Apply one or two layers of paint on primed or not primed surface. The paint diluted with water in ratio 1:10 can be used for primer coating.

APPLICATION METHODS

- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION

- per one layer 110 – 150 g/m^2;
- per two layers 250 – 300 g/m^2.

SAFETY INFORMATION The cured paint film is non-toxic and fireproof.

GUARANTEED SHELF LIFE 12 MONTHS

UNIPRIMER

FEATURES
A solution of acrylic resin in a mixture of organic solvents with the addition of functional additives and pigments.

APPLICATIONS
For strengthening, priming and dedusting the concrete, foam concrete, cement, fibro-cement, gypsum and other mineral surfaces for the coloring with acrylic organosoluble and water-dispersive paints, as well as for wood and fiber wood materials.
It is used outdoors and indoors the industrial and civil buildings.

Advantages

- Ready to use
- Does not turn to yellow
- Limits the micro-scratches occurrence on the floor surface.
- It can be applied both to fresh concrete, immediately after machine leveling, and to the mature, unworked concrete surface.

APPLICATION METHODS
• hand method (with brush or roller);
• spraying (aerial or airless).

CONSUMPTION from 150 g/m^2

DRYING TIME 1 hour at a temperature of +20°C

GUARANTEED SHELF LIFE 18 MONTHS

ACRYLIC LACQUER UNISTONE

FEATURES
A solution of acrylic resin in a mixture of organic solvents with the addition of functional additives and pigments.

APPLICATIONS
For strengthening and priming the concrete, foam concrete, cement, fibro-cement, gypsum and other mineral surfaces, as well as for wood and fiber wood materials.
Before the coloring with acrylic organosoluble and water-dispersive paints.
It is used outdoors and indoors the industrial and civil buildings.
For surface decoration (imparts "wet stone" effect).

Advantages

- Ready to use
- Does not turn to yellow
- Limits the micro-scratches occurrence on the floor surface.

APPLICATION METHODS
• hand method (with brush or roller);
• spraying (aerial or airless).

CONSUMPTION from 150 g/m^2.

DRYING TIME 1 hour at a temperature of +20°C.

GUARANTEED SHELF LIFE 18 MONTHS

AQUA-PANELLACK

FEATURES
Dispersion of acrylic resin in water with functional additives.

APPLICATIONS
As the finishing surface of the walls and ceilings indoors. For decorative coating of wood, wallpaper, wall panels made of MDF, chipboard and OSB, styrofoam, polyurethane foam, plaster, concrete, brick, as well as surfaces previously colored with water-dispersion paints.
Do not apply to surfaces that are subject to intense mechanical abrasion.

COLOUR transparent liquid

DRYING TIME 2 hours

APPLICATION METHODS
- hand method (with brush or roller);
- spraying (aerial or airless).

CONSUMPTION 100-120 g/m^2 (depends on the type and quality of the surface preparation).

GUARANTEED SHELF LIFE 18 MONTHS

AQUA-ANTISEPTIK

FEATURES
Dispersion of acrylic resin and pigments in water with functional additives.

APPLICATIONS
To cover all types of wooden surfaces from the outside and inside (facades, fences, linings, panels, furniture, etc.).
Do not use in baths or for floor coverings.
The coating accentuates the wood natural texture. After drying, a transparent, durable, weatherproof, light-resistant decorative protective coating is formed. The coating imparts a dirt-repellent properties, protects wood against mold, fungus and moss. It does not form droplets and streaks when applied.

DRYING TIME 2 hours

APPLICATION METHODS
- hand method (brush);
- spraying (aerial or airless).

CONSUMPTION 75-100 g/m^2 (depends on the type of wood and the surface preparation quality).

GUARANTEED SHELF LIFE 36 MONTHS

EPOXY RESIN ED-20

FEATURES

Two-component uncured diane-epoxy resin of general purpose for normal temperature curing (cold curing) using a wide range of hardeners.

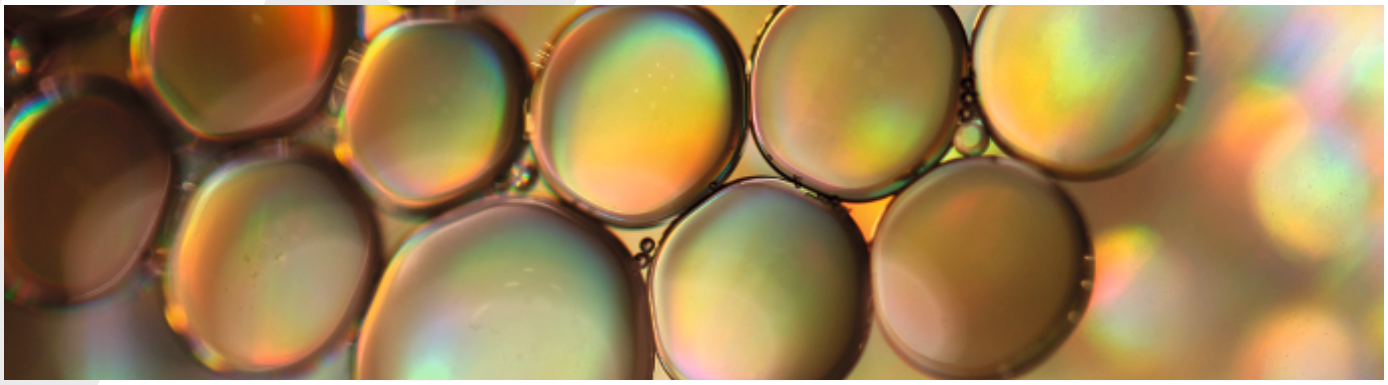
APPLICATIONS

Advantages

- Epoxy resins provide the highest quality of adhesive joint and strength
- The resin has very little shrinkage
- The resin is well absorbed and permanently forms a composite whole with a variety of different materials
- Epoxy coating has very low water absorption (max. 0,5%)
- Epoxy resin has a low viscosity and controlled cure time
- Epoxy resin provides high strength of products
- Epoxy resin provides excellent adhesive characteristics
- Flavourless
- No emission of toxic evaporations
- Characterized by corrosion resistance
- Heat conducting
- Epoxy resin can be used as a chemically resistant barrier layer
- Epoxy resin provides long-term protection to metal, steel and concrete products operating in highly corrosive environments and submerged in liquid

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD	
	Premium grade	First grade
Appearance	High-viscosity clear without visible mechanical impurities and water	
Color, iron-cobalt scale, max.	4	12
Content of epoxy groups, %	19,9-22,0	19,9-22,0
Content of chloride ion, % max.	0,003	0,006
Content of saponifiable chloride, %, max.	0,5	0,9
Content of hydroxyl groups, %, max.	1,7	-
Content of volatiles, %, max.	0,5	0,9
Dynamic viscosity at +50°C, P*s	2-18	12-25
Gelling time with hardener, h, min.	5,0	4,0



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MAINTENANCE

The resin and hardener should be bonded at a temperature of at least +20°C. Gelling time is about 1,5 hours, and the time of full curing is 24 hours.

Forbids to mix a large amount of resin with a hardener immediately, without using special mixing machines to avoid an effervescence.

When fiberglass-made products manufacturing, it is recommended to make a test sample for each batch of resin and hardener.

Heating considerably accelerates the curing process. As self-curing occurs with the calorification, when preparing large dose of resin with a hardener, self-heating of the mixture is possible, accompanied by foaming and rapid solidification.

TRAITS

Epoxy resins are thermoplastic, but under the influence of various hardeners they are converted into non-meltable polymers. The resins curing process can occur at normal room temperature +20°C.

There are two ways to the resin temporarily viscosity decreasing: one is the heating of the mixture, and the second is the addition of a solvent. The resin with low viscosity is easier to apply with a brush or roller, it quickly impregnates fiberglass and penetrates deeper into porous surfaces like rot damaged wood.

The hardener is added at a rate of 10% by weight of the resin.
The non-cured diane epoxy resin ED-20 can be converted into a non-meltable and insoluble condition by the action of various type curing agents – aliphatic and aromatic di- and polyamines, low-molecular polyamides, di- and polycarboxylic acids and their anhydrides, phenol-formaldehyde resins and other compounds. Depending on the hardener used, the properties of the cured epoxy resin ED-20 can vary within the widest range. The most commonly used hardener is PEPA (polyethylenepolyamine).

SAFETY INFORMATION

People who working with epoxy resin ED-20 must be provided with workwear and individual security measures. All activities while working with epoxy resins must be realized in the premises, equipped with flowing-exhaust ventilation.

GUARANTEED SHELF LIFE 18 MONTHS

Epoxy-diane resin ED-20 is stored in tightly closed tare in closed warehouses at temperature not higher than +40°C.

POLYETHYLENEPOLYAMINE (PEPA)

FEATURES

Polyethylenepolyamine is a cold curing hardener for epoxy resins and compositions. It is a mixture of ethylene amines.

APPLICATIONS

Polyethylenepolyamine is used as a curing agent for epoxy resins, for the production of ion exchange resins, additives, and for other purposes.

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	From light yellow to dark brown color fluid without mechanical inclusions, with a sharp smell of ammonia.
	A greenish color is allowed. Well soluble in water and alcohol, absorbs moisture from the air and carbon dioxide.
Density, kg/m^3	950-1050
Mass fraction of total nitrogen,%, min.	30.0
Mass fraction of mineral impurities,%, max.	0.2
Mass fraction of water,%, max.	2.0

POLYMERIZATION

Recommended curing conditions for a composition containing 10 parts by weight of PEPA and 100 parts by weight of epoxy resin ED-20:

1. regular – 24 h at (20 – 25)°C;
2. to impart improved physical and mechanical characteristics to products – 24 h at (+20 – +25)°C and 5 h at +80°C.

Note: The exact amount of hardener and the viability of the composition are determined experimentally by the user, depending on the field of application, the weight of the fill, the curing mode, the presence and type of filler, etc.

SAFETY INFORMATION

Precautionary measures: storage in a closed container away from acids (anhydrides), oxidants, epichlorohydrin, water, sources of fire.

Use in the rooms equipped with flow-and-exhaust ventilation, use personal protective equipment, store in a tightly closed container in a dark place at an ambient temperature from +15 to +40°C.

PEPA is hygroscopic and, forming a solution with water, is partially hydrolyzed.Therefore, PEPA must be stored in air-tight containers.

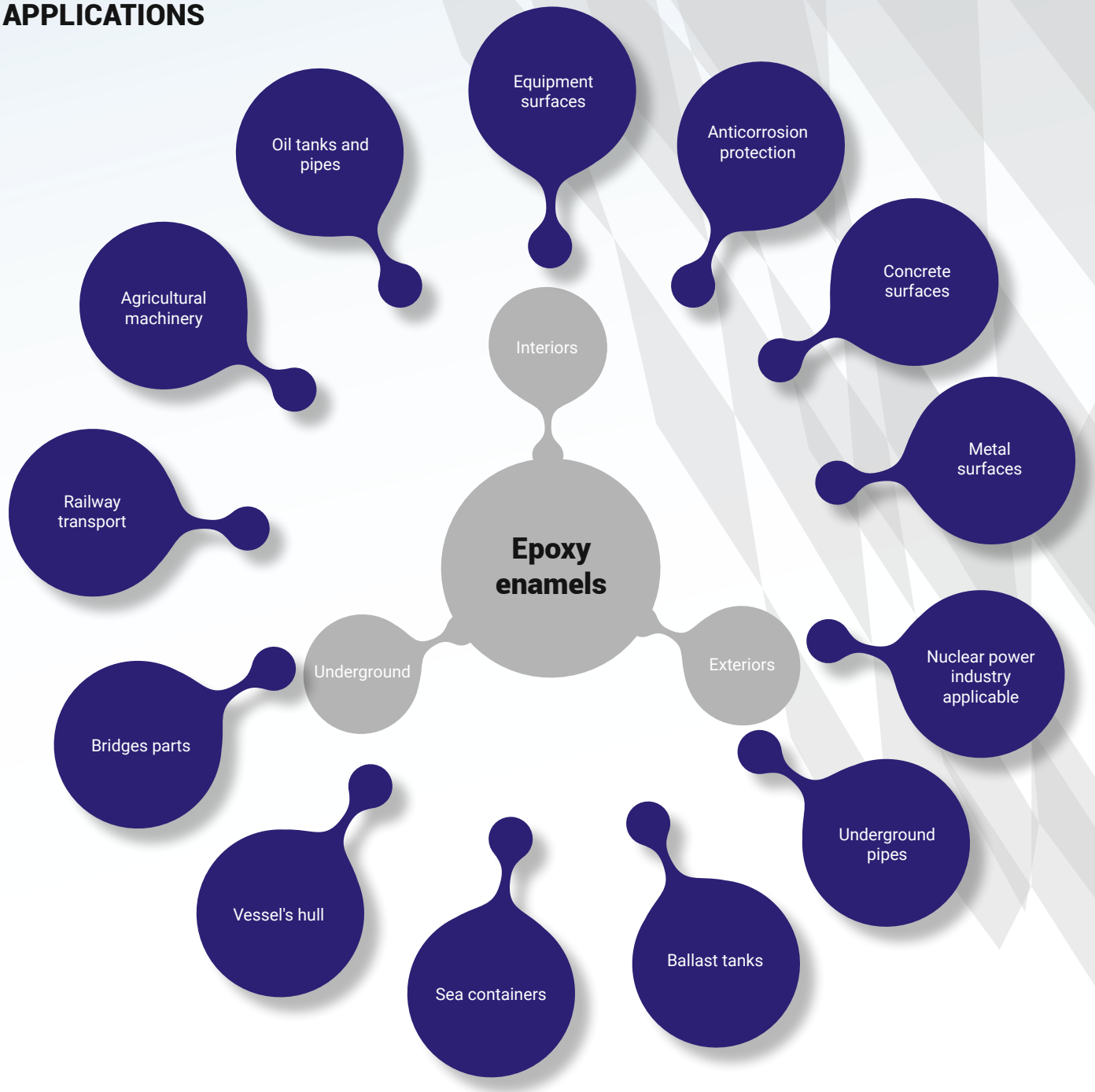
GUARANTEED SHELF LIFE 2 YEARS

EPOXY ENAMELS «AQUAKOR-5»; EPOGUARD ENAMEL

FEATURES

Two-component paint material comprising base enamel (suspension of pigments, plasticizers, illers in the solution of epoxy and urea-formaldehyde resins with the addition of dispersants and corrosion inhibitors) and hardener. (*Look at physical and mechanical properties for differences*).

APPLICATIONS



Advantages

- The coating is resistant to water, to the constant action of water and condensate
- The enamels can also be used as a sealant
- The coating on wet surfaces is possible
- The enamels can also be used as a primer for pipes exposed to condensation
- The best protection for instruments operating in tropical climates
- It is used for deactivating finishing of the building structures, premises and external surfaces of equipment of nuclear power facilities
- Wide color range is available. It is possible to select colors by RAL or consumer sample

PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD FOR AQUAKOR-5	STANDARD FOR EPOGUARD ENAMEL
Appearance of coating	Homogeneous smooth surface	
Funnel viscosity of enamel basis, s, min.	60	60
Mass fraction of solids in the semi-inished product of enamel, %, min.	49	50
Milling degree of enamel basis, μm, max.	35	30
Drying time to degree 3 at temperature (20±2)°C, h, max.	20	24
Bending elasticity of the coating, mm, max.	2	3
Coating impact strength, on the device U-1a, cm, min.	40	40
Coating adhesion, points, max.	1	2
Viability of enamel at (20±2)°C, h, min.	5	7
Spreading rate of enamel, g/m^2, max	150	120

APPLICATION METHODS:

•with brush, roller (relative viscosity of enamel – 55-80 s);
•pneumatic spraying (relative viscosity of enamel – 25-30 s);
•airless spraying (relative viscosity of enamel – 30-55 s).

CONSUMPTION One layer – from 150 g/m^2.

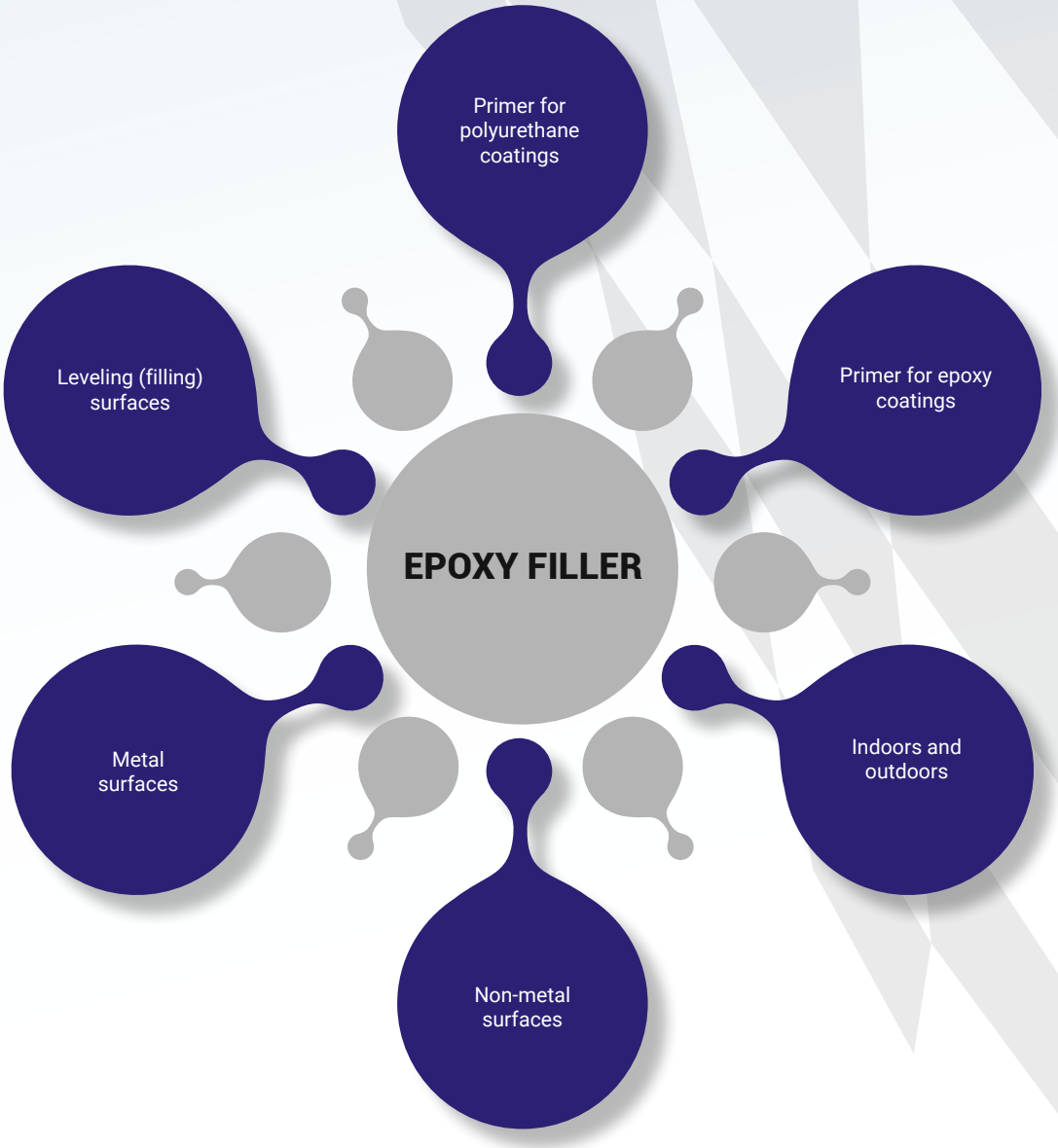
SAFETY INFORMATION The enamel's film in cured state is not toxic and fireproof.

GUARANTEED SHELF LIFE 6 MONTHS

EPOXY FILLER

FEATURES
Mixture of pigments, fillers, plasticizers, epoxy resin in organic solvents and hardener.

APPLICATIONS



Applied at nuclear facilities.
Basic colors – red-brown, gray. Other colors are possible on customer's sample.

APPLICATION METHODS:

- with spatula if used as a filler;
- with brush, roller or by spraying if used as primer coat.

CONSUMPTION

- when priming- from 100 g/m^2 for one layer
- when filling – from 150 g/m^2 for one layer

SAFETY INFORMATION The film of the filler in cured state is not toxic and fireproof.

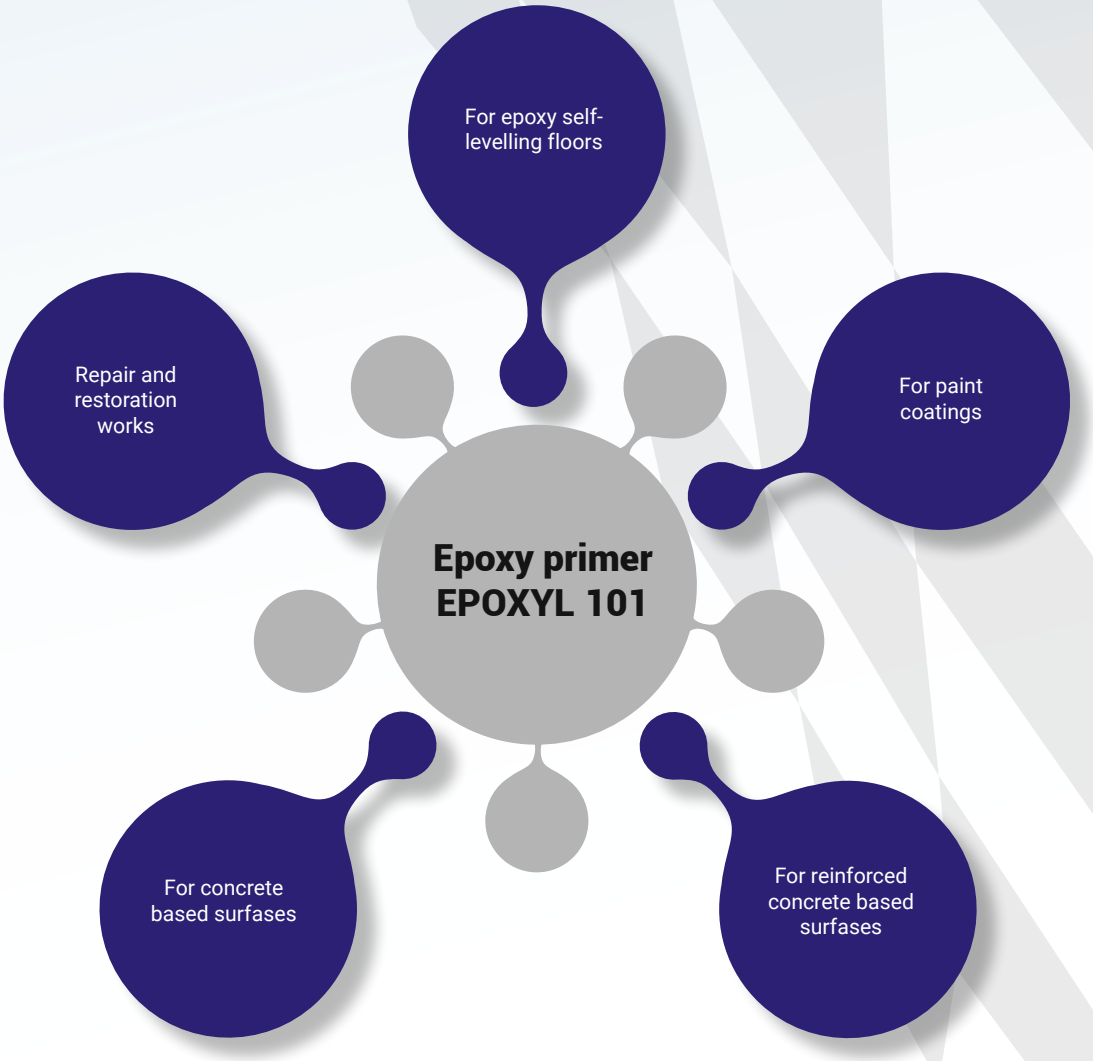
GUARANTEED SHELF LIFE 12 MONTHS

EPOXY PRIMER EPOXYL 101

FEATURES

A three-component material consisting of a base (epoxy hardener water emulsion), a resin part (modified epoxy resin) and a diluent (demineralized water).

APPLICATIONS



Advantages

- High adhesion to the substruction
- Primer is water-repellent, and imparts hydrophobic properties to the surfaces
- Can be applied to a wet surface
- Applying to a concrete surface without waterproofing
- Applying to a new (fresh) concrete (14 days after the concrete laying)
- Has increased heat resistance up to +80°C
- The coating is resistant to negative temperature up to -35°C
- Low curing temperature +5°C

ADDITIONAL INFORMATION

The primer is evenly applied to the prepared surface. Priming must be repeated in a case of the surface high porosity, but not earlier than 24 hours. When priming, avoid the puddles formation of the working compound.
The prepared composition is used within 60 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases.
The primer's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%.
The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.

APPLICATION METHODS roller or brush.

CONSUMPTION 0,3 – 0,5 kg/m^2 (depending on the treatment surface porosity)

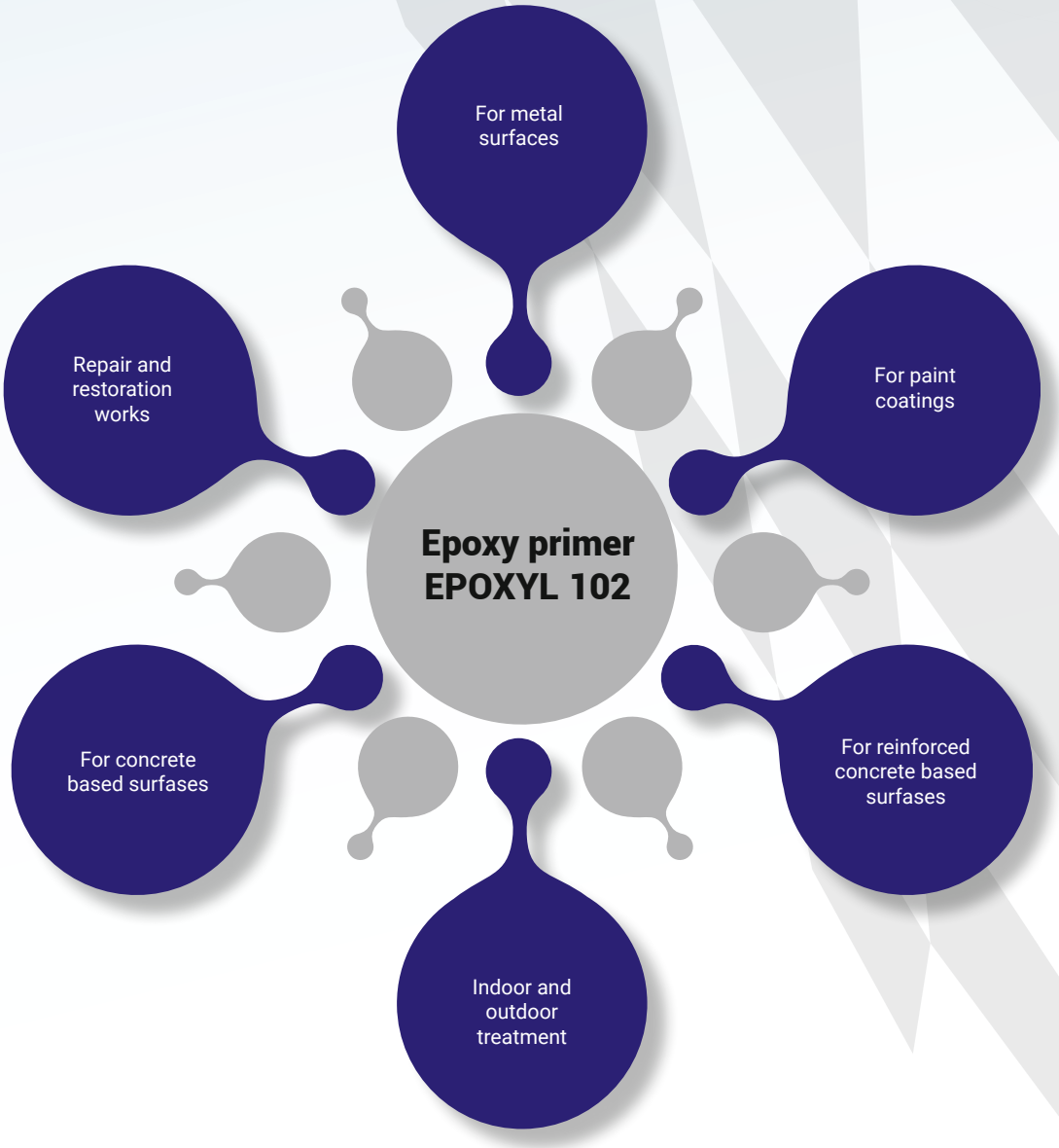
GUARANTEED SHELF LIFE 12 MONTHS

EPOXY PRIMER EPOXYL 102

FEATURES

Two-component material consisting of epoxy resin and base (dispersion of pigments, fillers and epoxy hardener water emulsion).

APPLICATIONS



Advantages

- High adhesion to the substruction
- Imparts hydrophobic properties to the surfaces
- Good chemical resistance
- Has increased heat resistance up to +80°C
- The coating is resistant to negative temperature up to -35°C
- Low curing temperature +5°C

ADDITIONAL INFORMATION

The primer is evenly applied to the prepared surface. Priming must be repeated in a case of the surface high porosity, but not earlier than 24 hours. When priming, avoid the puddles formation of the working compound.
The prepared composition is used within 45 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases.
The primer's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%.
The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.

APPLICATION METHODS roller, brush, pneumatic or airless spraying.

CONSUMPTION 0,1 kg/m^2

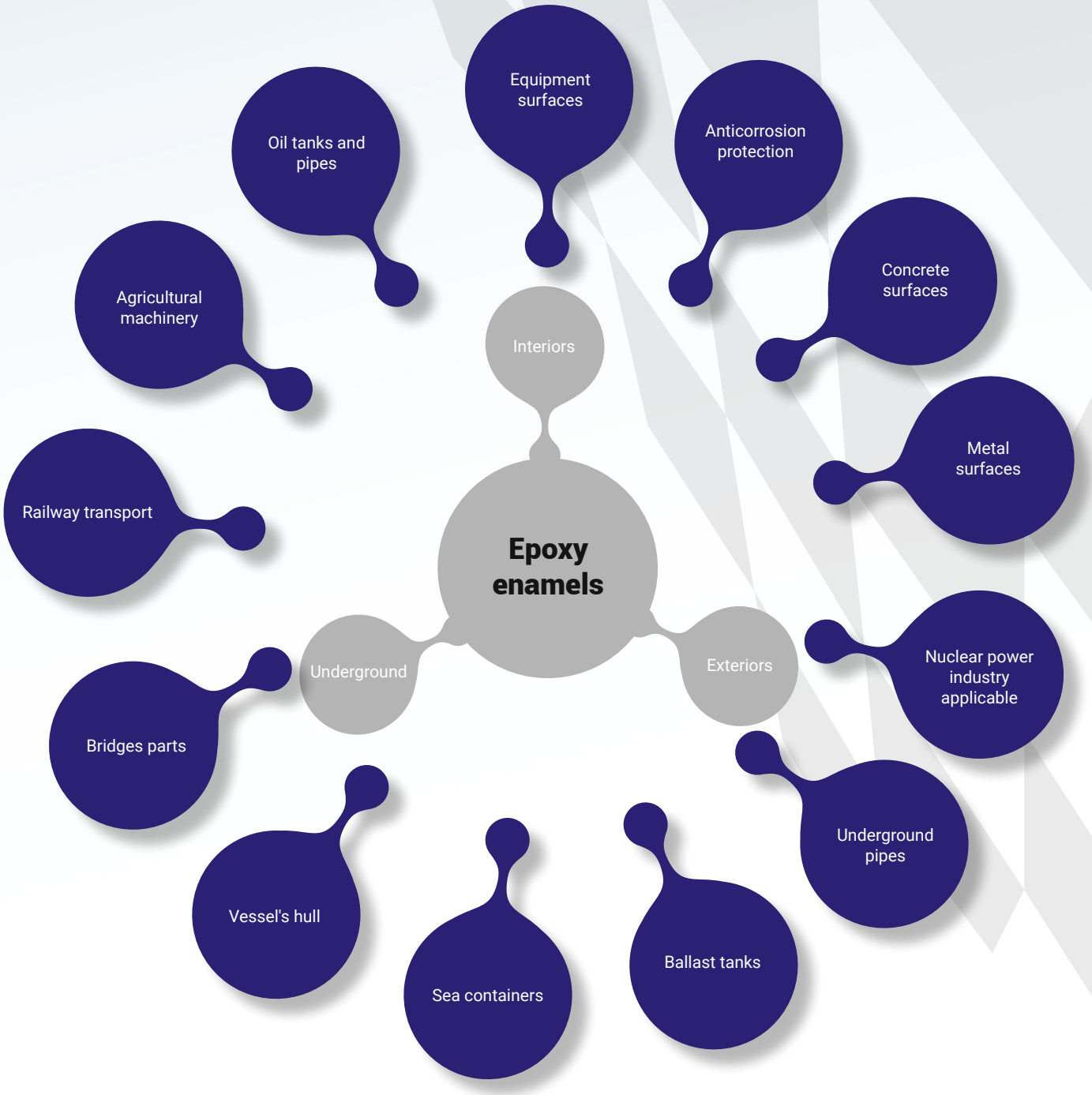
GUARANTEED SHELF LIFE 12 MONTHS

EPOXY ENAMEL EPOXYL 103

FEATURES

A three-component material consisting of epoxy resin, quartz filler and base (dispersion of pigments and epoxy hardener water emulsion).

APPLICATIONS



Advantages

- The coating is resistant to water, to the constant action of water and condensate
- The enamels can also be used as a primer for pipes exposed to condensation
- The best protection for instruments operating in tropical climates
- It is used for deactivating finishing of the building structures, premises and external surfaces of equipment of nuclear power facilities

ADDITIONAL INFORMATION

After the primer has dried (about 24 hours), enamel is applied in 2-3 layers. Each subsequent coat is applied after the previous layer has dried (about 24 hours).
The enamel is evenly applied to the prepared surface. Painting must be repeated in a case of the surface high porosity, but not earlier than 24 hours. When painting, avoid the puddles formation of the working compound.
The prepared composition is used within 45 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases.
The enamels's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%.
The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.

APPLICATION METHODS:

•with brush or roller
•pneumatic spraying
•airless spraying

CONSUMPTION One layer from 0,15 kg/m^2 (depending on the treatment surface porosity)

SAFETY INFORMATION The enamel's film in cured state is not toxic and fireproof.

GUARANTEED SHELF LIFE 12 MONTHS

EPOXY LIQUID FLOOR EPOXYL 104

FEATURES

Two-component painting material consisting of epoxy resin and base (dispersion of pigments and epoxy hardener water emulsion).

APPLICATIONS

EPOXY LIQUID FLOOR EPOXY 104

- Enterprises of the chemical industries
- Enterprises of pharmaceutical industries
- Warehouse terminals
- Medical institutions
- Food industry enterprises, clubs and restaurants
- Shopping malls
- Parkings, garages, auto repair shops
- Aircraft hangars, airport terminals
- Administrative and office premises
- Industrial enterprises
- Exhibition centers
- Swimming pools

Advantages

- High adhesion to the substruction
- Coating is water-repellent, and imparts hydrophobic properties to the surfaces
- Can be applied to a wet surface
- Applying to a concrete surface without waterproofing
- Applying to a new (fresh) concrete (7 days after the concrete laying)
- Has increased heat resistance up to +80°C
- The coating is resistant to negative temperature up to -35°C
- Low curing temperature +5°C
- Vapor permeable
- Up to 5mm thickness layer applying is possible
- High wear resistance
- High resistance to temperature changes
- Durability
- Good chemical resistance
- Good resistance to yellowing
- Machine cleaning is possible
- Fire safety

ADDITIONAL INFORMATION

The prepared composition is used within 60 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases. The coatings's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%. The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.
Operation is permitted:
• after 3 hours – pedestrian traffic.
• after 7 days – full mechanical load.

CONSUMPTION for 1 mm thickness – 1,5 kg/m^2. The material's uniform application is possible with a minimum consumption of 2,8 kg/m^2. A layer up to 5 mm thick can be applied at a time.

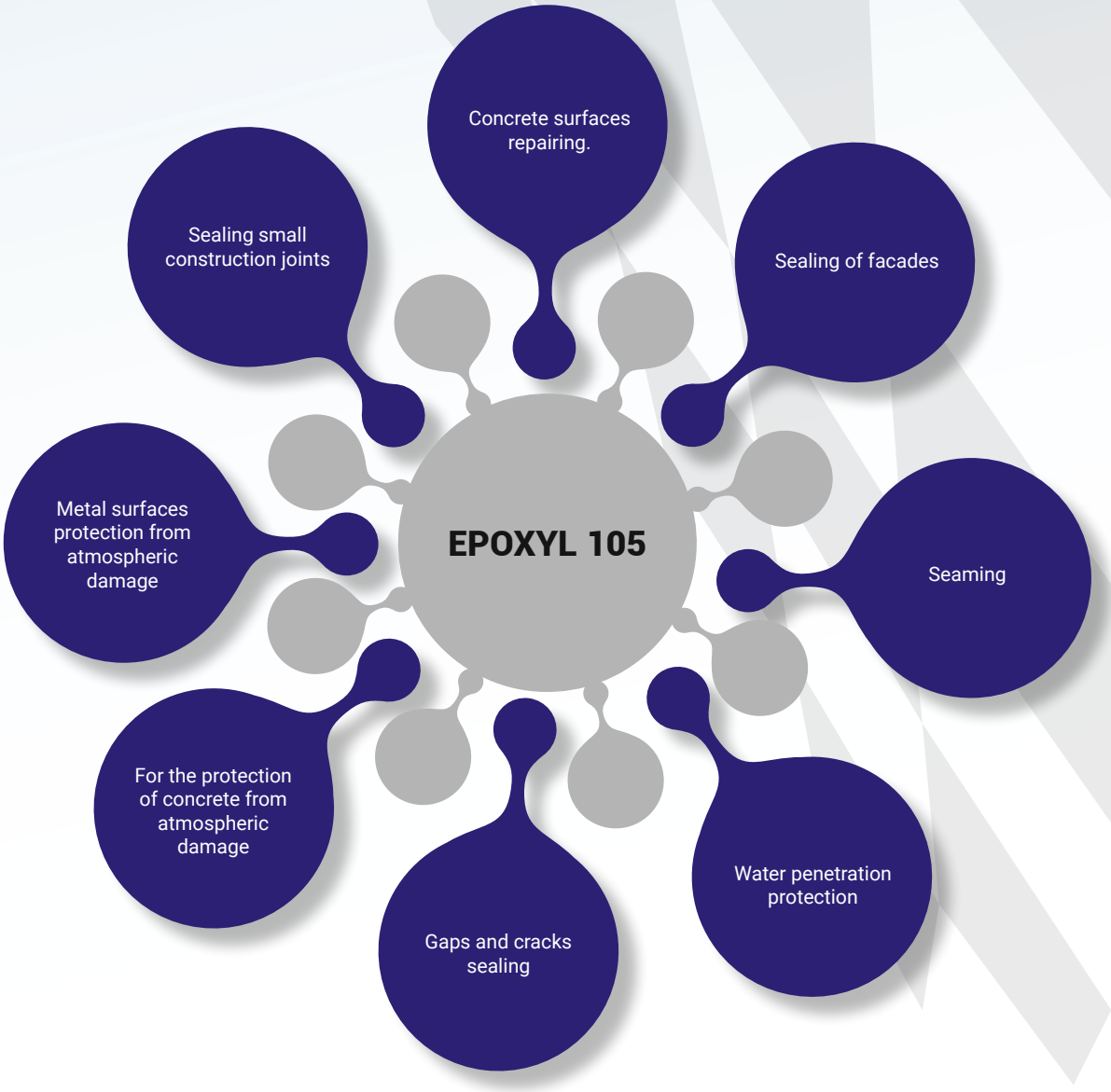
GUARANTEED SHELF LIFE 12 MONTHS

EPOXY REPAIR MATERIAL EPOXYL 105

FEATURES

Two-component material consisting of modified epoxy resin and base (epoxy hardener water emulsion).

APPLICATIONS



Advantages

- High adhesion to the substruction
- Coating is water-repellent, and imparts hydrophobic properties to the surfaces
- Applying to a concrete surface without waterproofing
- Vapor permeable
- High wear resistance
- High resistance to temperature changes
- Durability
- Good chemical resistance
- Fire safety

ADDITIONAL INFORMATION

The prepared composition is used within 60 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases. The coatings's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%. The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.

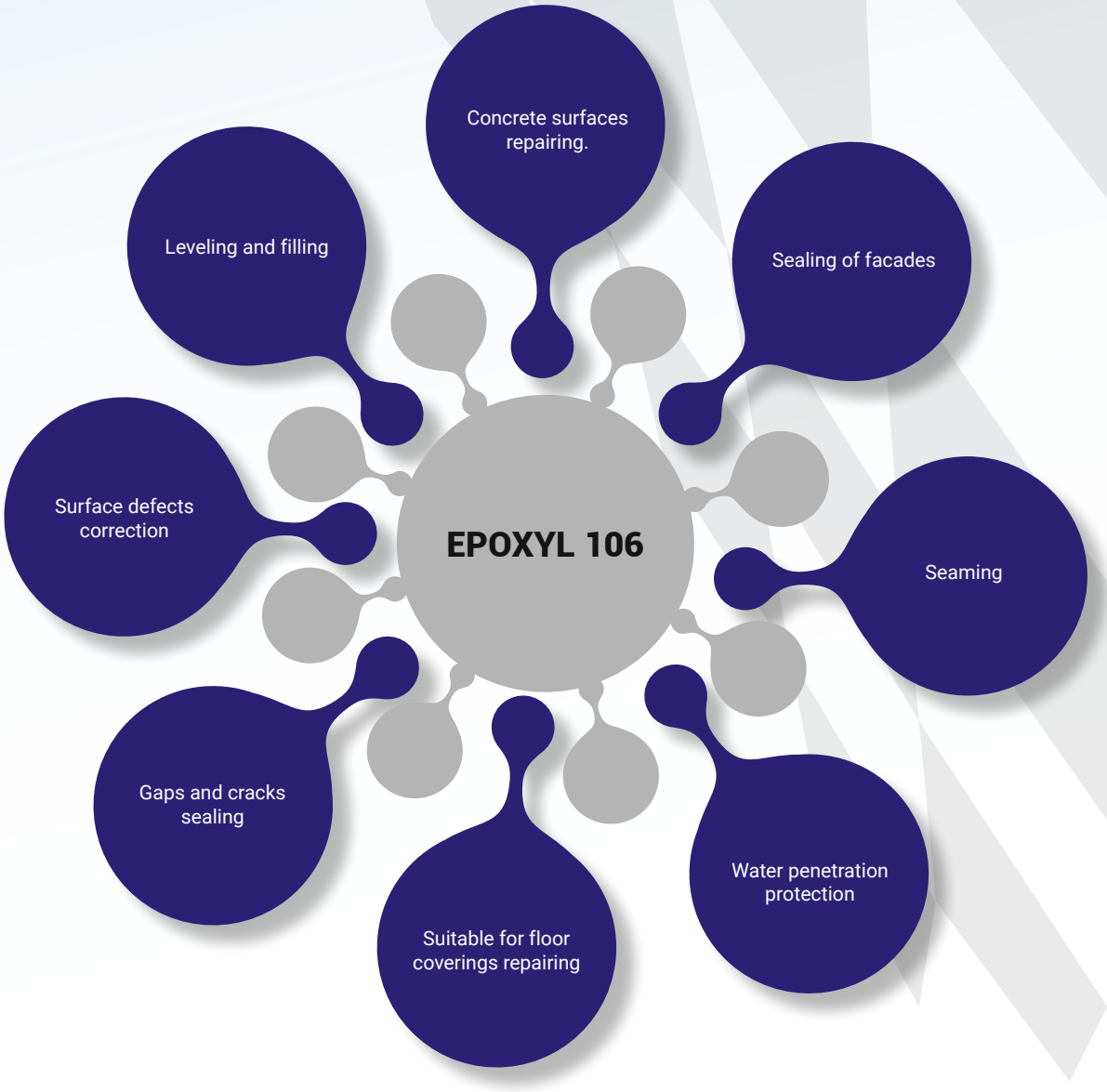
GUARANTEED SHELF LIFE 12 MONTHS

REPAIR-AND-RECOVERY COMPOUND EPOXYL 106

FEATURES

A two-component material consisting of a base (a dispersion of pigments and fillers in an epoxy water-based hardener) and a resin part (a dispersion of cement and quartz filler in a modified epoxy resin).

APPLICATIONS



Advantages

- High adhesion to the substruction
- Coating is water-repellent, and imparts hydrophobic properties to the surfaces
- Can be applied to a wet surface
- Applying to a concrete surface without waterproofing
- Applying to a new (fresh) concrete (14 days after the concrete laying)
- Has increased heat resistance up to +80°C
- The coating is resistant to negative temperature up to -35°C
- Low curing temperature +5°C
- Vapor permeable
- High wear resistance
- High resistance to temperature changes
- Durability
- Good chemical resistance
- Fire safety

ADDITIONAL INFORMATION
The prepared composition is used within 60 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases. The coatings's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%. The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.

APPLICATION METHOD applied with a spatula

CONSUMPTION for a thickness of 1mm is 2,0 kg/m^2. At a time, a layer up to 10 mm thick can be applied.

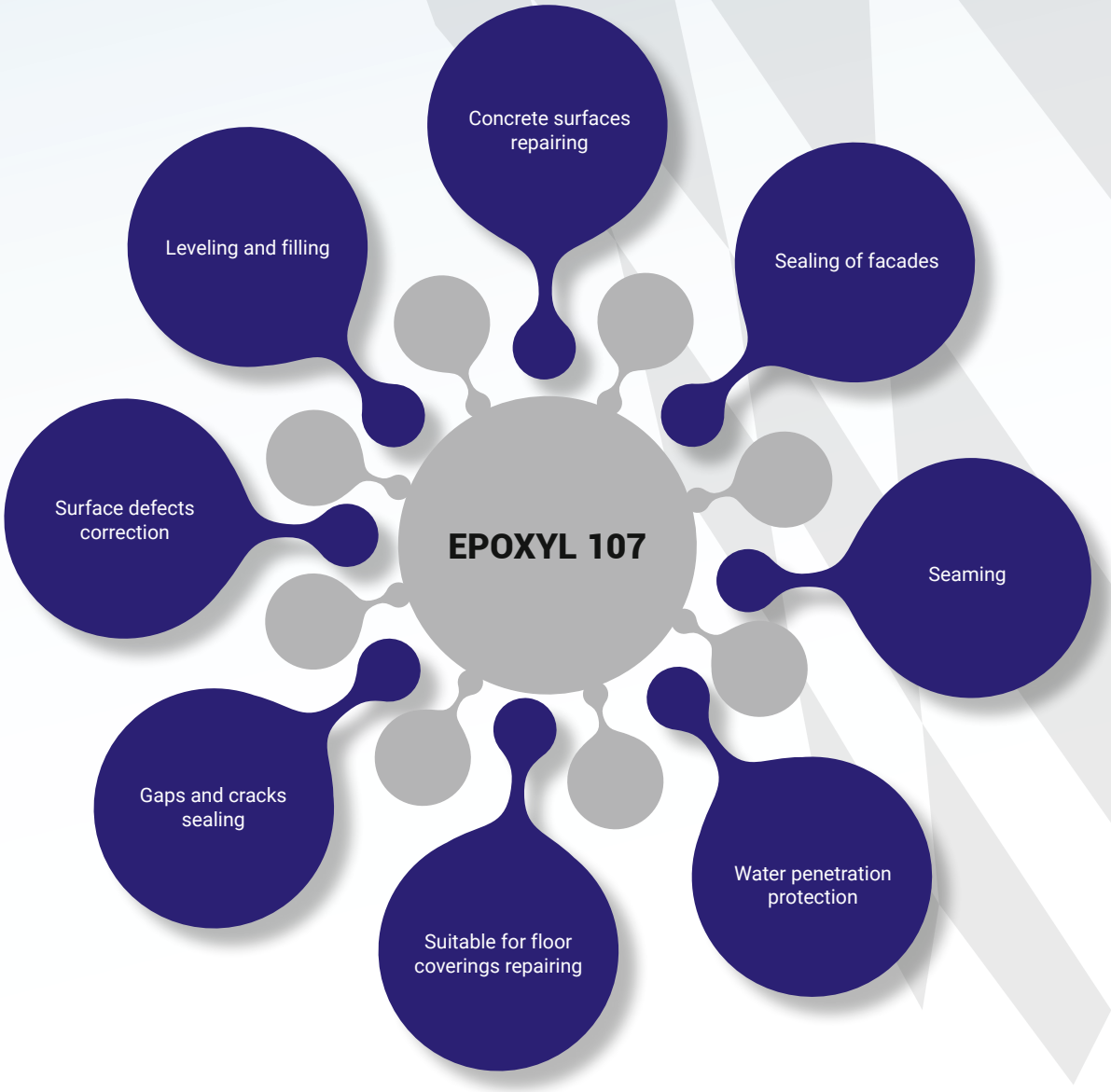
GUARANTEED SHELF LIFE 12 MONTHS

REPAIR-AND-RECOVERY COMPOUND EPOXYL 107

FEATURES

A three-component material consisting of a base (a dispersion of pigments and fillers in an epoxy water-based hardener), a resin part (a dispersion of cement and quartz filler in a modified epoxy resin), and a quartz filler.

APPLICATIONS



Advantages

- High adhesion to the substruction
- Coating is water-repellent, and imparts hydrophobic properties to the surfaces
- Can be applied to a wet surface
- Applying to a concrete surface without waterproofing
- Applying to a new (fresh) concrete (14 days after the concrete laying)
- Has increased heat resistance up to +80°C
- The coating is resistant to negative temperature up to -35°C
- Low curing temperature +5°C
- Vapor permeable
- High wear resistance
- High resistance to temperature changes
- Durability
- Good chemical resistance
- Fire safety

ADDITIONAL INFORMATION
The prepared composition is used within 60 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases. The coatings's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%. The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%.

APPLICATION METHOD applied with a spatula

CONSUMPTION for a thickness of 1mm is 2,0 kg/m^2. At a time, a layer up to 20 mm thick can be applied.

GUARANTEED SHELF LIFE 12 MONTHS

EPOXY LIQUID FLOORS POLYPOL

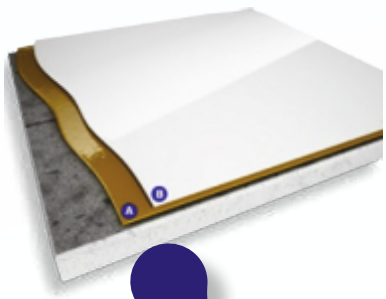
FEATURES

Liquid floor - polymer coatings that are applied on the surface by the "filling" method. The basis for floors are epoxy and polyurethane resins, which are the most common materials used in the creation of such flooring.
Liquid floor is a multi-component material, consisting of the base epoxy material (slurry of pigments and filler in the epoxy resin) and a hardener.

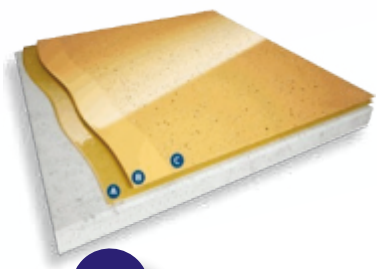
APPLICATIONS

EPOXY LIQUID FLOORS

- Enterprises of the chemical industries
- Enterprises of pharmaceutical industries
- Warehouse terminals
- Medical institutions
- Food industry enterprises, clubs and restaurants
- Shopping malls
- Parkings, garages, auto repair shops
- Aircraft hangars, airport terminals
- Administrative and office premises
- Industrial enterprises
- Exhibition centers
- Swimming pools



Epoxy Floor
(monolithic coatings without fillers)
A - Priming layer
B - Finish layer

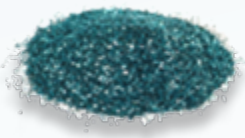


Epoxy Floor Décor
(monolithic coatings with decorative elements)
A - Priming layer
B - Finish layer
C - Decorative elements

Epoxy Floor Antislip
(monolithic coatings with quartz sand)
A - Priming layer
B - Reinforcing layer
C - Quartz sand
D - Finish layer

Colored polymeric "chips" – pieces of acrylic paint.

Colored quartz sand.



"Glitterers" (decorative sequins).

Advantages

- High adhesion to the substruction
- Coating is water-repellent, and imparts hydrophobic properties to the surfaces
- Can be applied to a wet surface
- Applying to a concrete surface without waterproofing
- Applying to a new (fresh) concrete (7 days after the concrete laying)
- Has increased heat resistance up to +80°C
- The coating is resistant to negative temperature up to -35°C
- Low curing temperature +5°C
- Vapor permeable
- Up to 5mm thickness layer applying is possible
- High wear resistance
- High resistance to temperature changes
- Durability
- Good chemical resistance
- Good resistance to yellowing
- Machine cleaning is possible
- Fire safety

ADDITIONAL INFORMATION

The prepared composition is used within 60 minutes at temperatures up to + 20°C. At a higher temperature the prepared mixture viability decreases. The coatings's drying time is 24 hours at a temperature of +20°C and a relative humidity of up to 60%. The temperature of the ambient air, the surface and the applied material should be between +5°C and +35°C, relative humidity max. 80%. Operation is permitted:

- after 3 hours - pedestrian traffic.
- after 7 days - full mechanical load.

CONSUMPTION for 1 mm thickness – 1,5 kg/m^2. The material's uniform application is possible with a minimum consumption of 2,8 kg/m^2. A layer up to 5 mm thick can be applied at a time.

GUARANTEED SHELF LIFE 12 MONTHS

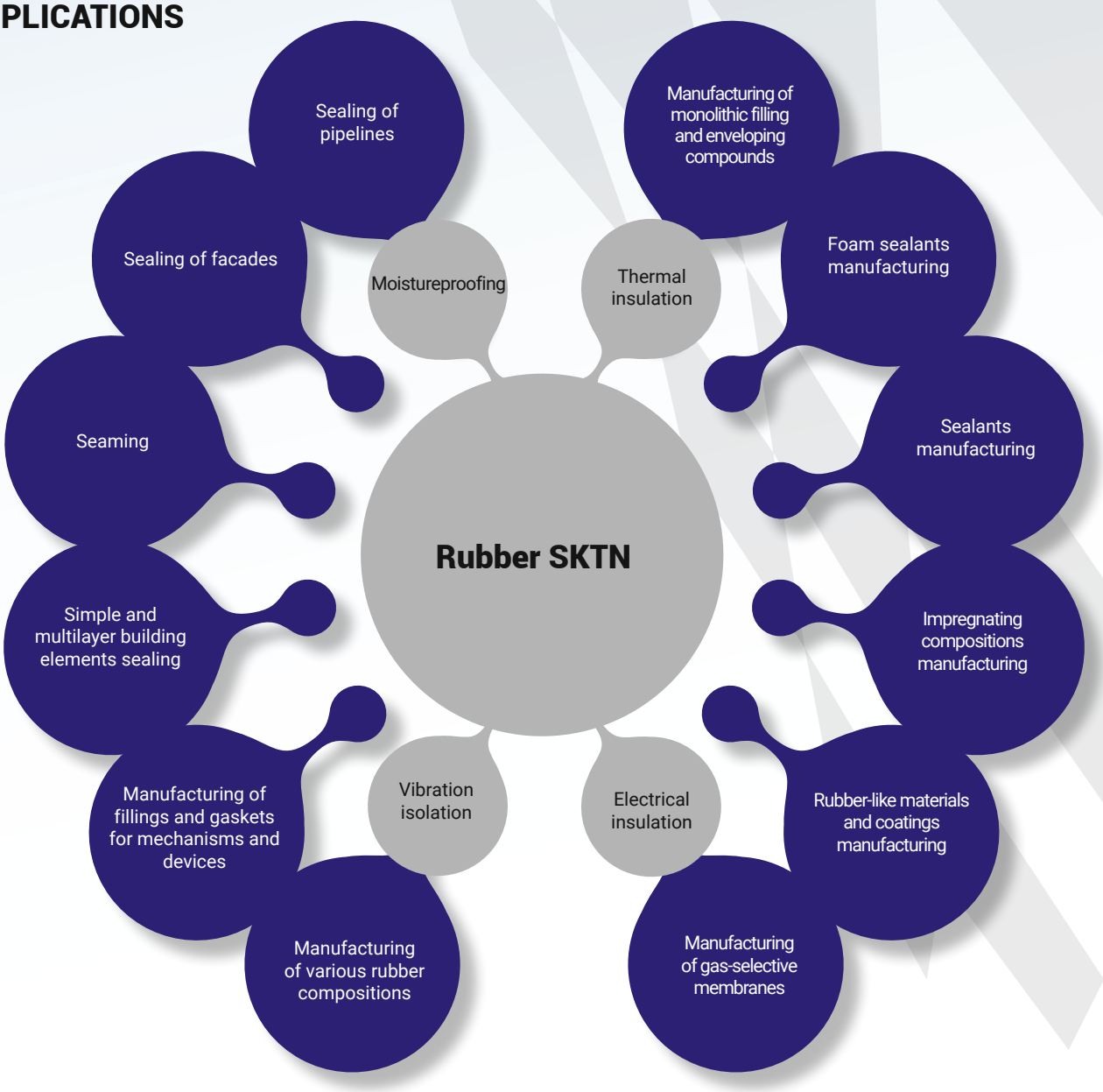
RUBBER SKTN

SYNONYMS: OH-Polymer, silanol terminated polydimethylsiloxane

FEATURES

Rubber SKTN is a synthetic low molecular weight dimethylsiloxane rubber, stabilized by active silica. Cured by cold curing catalysts.

APPLICATIONS



Advantages

Operating temperature from -60°C to +250°C, elasticity preservated	High strength	Physiological inertness
Easy to processing	Chemical inertness	Tissue and hemocompatibility
High dielectric properties	Vibration resistance	Gas permeability (the highest permeability of all known polymers)
High hydrophobicity	Resistant to fungi and microorganisms	Selective for gas permeability
High elasticity	Acid resistance	Easily sterilized
High resilience	Resistance to the action of ozone, ultraviolet	Economical, reliable and durable even in extreme conditions

ADDITIONAL INFORMATION

Silicone rubbers are cured at room temperature in the presence of catalysts such as K-1, K-100 or №18.

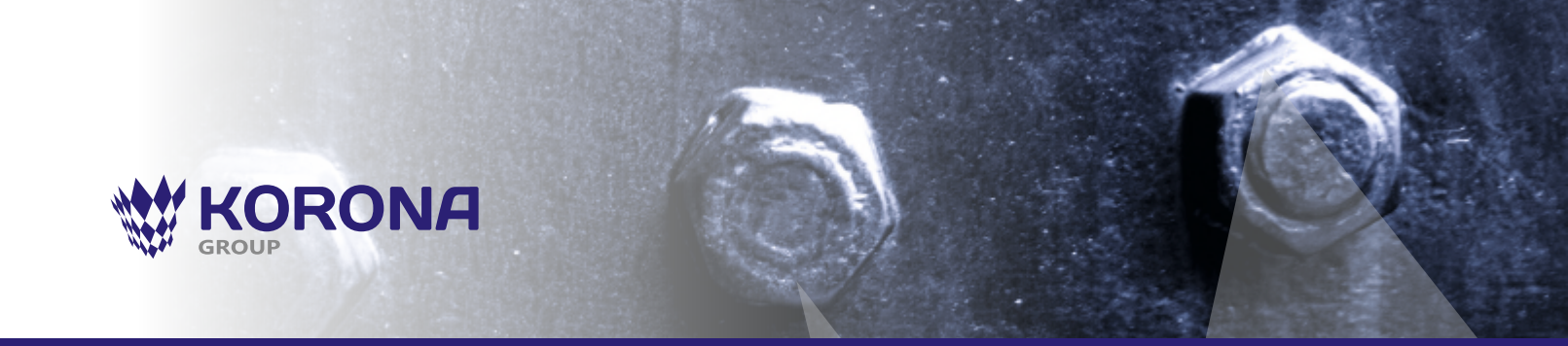
PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD	
	A	D
Appearance	Turbid colorless viscous liquid without mechanical impurities	
Funnel viscosity, s	90-150	601-1080
The loss of mass, %, max.	2,0	6,0
Heat stability, %, max.	2,0	2,0

SAFETY INFORMATION

Silicone-organic rubbers SKTN are non-toxic. Do not contain solvents.
Rubber is stored in warehouses at a temperature not exceeding +30°C away from direct sunlight.

GUARANTEED SHELF LIFE 12 MONTHS



ANTICORROSION RUBBER MASTIC ZHKMA

FEATURES

Two-component system consisting of rubber base and hardener mixed by customer immediately before use. In the cured condition, the anticorrosive mastic is a rubber-like material.

APPLICATIONS

Constructing

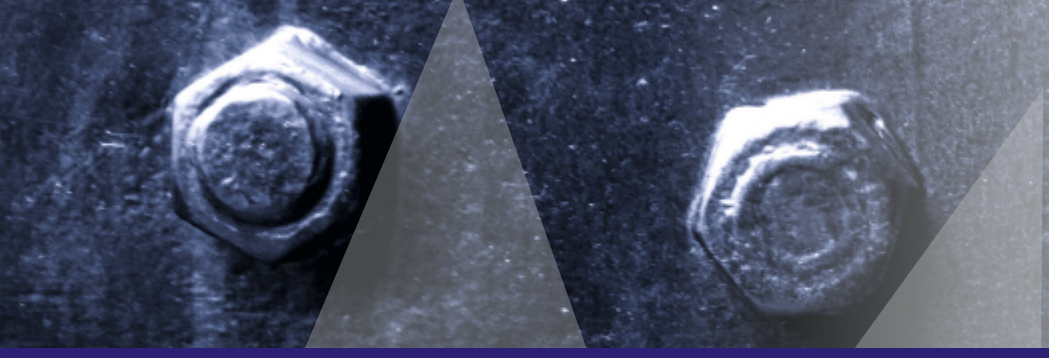
- For the protection of concrete and metal surfaces from atmospheric damage
- For silicate basis materials adhesion
- For decorative parts gluing to concrete
- Sealing small construction joints

Mechanical engineering

- For sealing hatches, covers, control devices, threaded connections
- As gaskets for parts with a rough surface
- To seal the cable input, instruments and equipment

Electronics

- For sealing of metallic compounds from stainless steel, aluminum and titanium alloys
- For sealing the equipment operating in the air environment at temperatures from -50°C to +150°C and up to +250°C, when short term exposure
- For protection of the influence of vibration, shock, and re-variable loads
- For the manufacturing of gaskets, figured products in the casting



Advantages

- The material is resistant to critical temperatures (from -50°C to +250°C)
- The material is hydrophobic and provides hydrophobicity of the treated objects
- Mastic is resistant to the influence of atmospheric factors
- Mastic is resistant to the action of ozone and ultraviolet
- The material has good dielectric properties

PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Homogeneous, without impurities
Nominal strength, MPa, min.	0,6*
Elongation,%, min.	150
Bond strength to concrete, MPa, min.	0,2
Water absorption for 24 h, %, max.	0,6
Flexibility on a bar with a diameter of 5 mm at -30°C	No cracks
Heat resistance, %, max.	0,6
Curing time at +20°C, h, max.	24
Shelf life (viability) of mastic at temperature (20±2)°C, h, min.	1,0
Lightfastness, h, min.	2
Note *When reinforcement with fiberglass, glass or polyester mesh – (3-3.5) MPa	

THE MASTIC PREPARATION

Working time with prepared mastic is regulated with an amount of added catalyst and can be within 0,5 to 3 hours. To the paste before applying carefully add hardener (catalyst) in the amount for a working time required.

COATING

The mastic can be applied on the surface with a spatula, brush, additional solvents are not required.

GUARANTEED SHELF LIFE 12 MONTHS

WATERPROOF RUBBER MASTIC ZHKMG

FEATURES

Self-curing two-component system consisting of rubber base and hardener mixed by customer immediately before use.

APPLICATIONS

- Construction and repair of the buildings and structures
- Joints sealing of concrete and reinforced concrete structures with a maximum deformation of 25%
- Building structures junctions sealing
- Gaps and cracks sealing

Advantages

- The material is hydrophobic and provides hydrophobicity of the treated objects
- Mastic is resistant to the influence of atmospheric factors
- Mastic is resistant to the action of ozone and ultraviolet
- The material has good dielectric properties

PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE		STANDARD
Color of coating		Must conform to the approved sample color
Appearance		Homogeneous, without impurities
Nominal strength, MPa, min.		0,6*
Elongation, %, min.		200
Bond strength to concrete, MPa, min.		0,4
Water absorption for 24 h, %, max.		0,4
Flexibility on a bar with a diameter of 5 mm at -30°C		5,0±0,2
Heat resistance, %, max.		1,0
Water tightness, min.	MPa Time	0,03 10 minutes
Curing time at 20°C, h, max.		24
Shelf life (viability) of mastic at temperature (20±2)°C, h, min.		1,0
Lightfastness, h, min.		2
Note * When reinforcement with fiberglass, glass or polyester mesh – (3-3.5) MPa		

THE MASTIC PREPARATION

Before application, thoroughly mix the mastic base with the hardener in the ratio 4 parts by weight of hardener for 100 parts by weight of base (or as indicated in the passport for batch of products). For mixing we recommend to use a slow speed drill with the mixer for viscous pastes.

WARNING!

Pot life of mastic at 20°C is up to 1 hour.

COATING

Apply the mastic with a spatula, a syringe or other device. Mastic layer shall be at least 5 mm. The mastic should be applied evenly, without breaks, rolls and voids. Never use mastic in the rain and snow, if there is a risk of precipitation on the surface mastic puts.

GUARANTEED SHELF LIFE 12 MONTHS

ROOFING DAMP-PROOF MASTIC IZOLON (ZHKMK, UNISIL ROOF)*

FEATURES

Two-component system consisting of rubber base and hardener mixed by customer immediately before use.

APPLICATIONS

Advantages

- The coating does not spread the flame, it is moderately flammable
- The coating retains elasticity at a temperature of -35°C up to +105°C
- No need to gravel the coating based on mastic.
- The covering is applicable for concrete, roofing felt, between the layers of roofing felt, concrete with glass, roofing felt with glass, metal and wood
- The light color top layer reduces the temperature of the roof, attic, and extends the coating life, also improves aesthetics.
- The application of mastic without fiberglass is allowed.

NOTE! Pot life of mastic at +20°C is up to 1 hour.

APPLICATION METHOD rubber squeegee, roller, brush, or in bulk.

GUARANTEED SHELF LIFE 12 MONTHS

** various products names are allowed for different markets*

REPAIR COMPOUND KR-3

FEATURES

Silicone repair compound KR-3 is two-component system consisting of rubber paste and hardener.

APPLICATIONS

Constructing

- For the protection of concrete and metal surfaces from atmospheric damage
- For silicate basis materials adhesion
- For decorative parts gluing to concrete
- Sealing small construction joints

Mechanical engineering

- For sealing hatches, covers, control devices, threaded connections
- As gaskets for parts with a rough surface
- To seal the cable input, instruments and equipment

TRAITS AND ADVANTAGES

- The material keeps elasticity at temperatures from -40°C to +100°C)
- The material is hydrophobic and provides hydrophobicity of the treated objects
- The material is resistant to the reaction of mineral oils, saline, alkalis and acids
- It has a high adhesion to concrete and metal surfaces
- The compound is resistant to the influence of atmospheric factors
- The compound is resistant to the action of ozone and ultraviolet
- It does not require the additional solvents using
- The material has good dielectric properties

COATING

The mastic can be applied on the surface with a spatula, brush, additional solvents are not required.

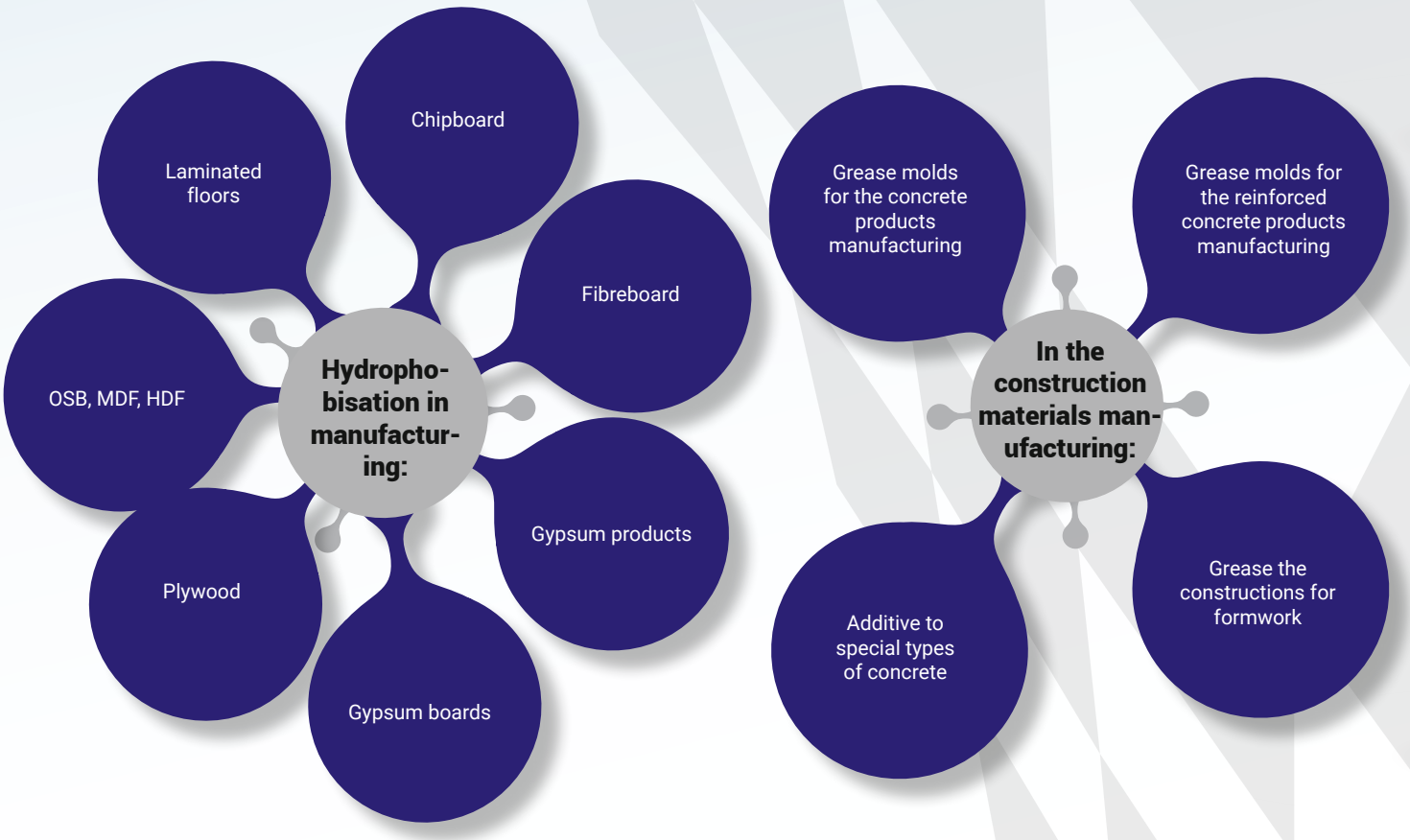
GUARANTEED SHELF LIFE 12 MONTHS

WAX EMULSIONS PE-60/1, PE-50/1

FEATURES

PE-60/1 – anion wax-water emulsion. Wax contant – 60±2%.
PE-50/1 – anion wax-water emulsion. Wax content – 50±2%.

APPLICATIONS



OPERATING PRINCIPLE

Hydrophobic effect occurs during the hot plates pressing. The emulsion decays and the molten wax settles making wood board layers water-repellent. As a result of application of the special emulsifier system, emulsion decays even before the binder hardens. This provides better protection against the water and moisture penetration. In many cases, it is sufficient to introduce 0,5-1,2% of emulsion by weight of dry material.

Advantages of the wax emulsions insertion into wood-composite materials:

- Protects against moisture during short and long-term exposure
- Protects against swelling
- Increases the plates strength
- Increases the plates smoothness and flatness
- Reduces dusting when cutting and grinding plates
- Increases the sanding belts life in 2 times or more
- Improves the layers structure formation
- Reduces the consumption of binder by 10-20% without impairing the physical and mechanical properties of plates
- The emulsion mixes well with all types of adhesives and chemical additives used in the manufacturing and introduced simultaneously with them

Consistent high quality and efficiency of the wax emulsion is confirmed by the positive results of many laboratories, as well as manufacturers of chipboard and fiber boards, MDF and laminate flooring.

Advantages of the wax emulsions over the other compositions:

- The simple method of application
- Good compatibility with urea and melamine based on resins
- Deeper penetration of small wax particles (about 1 micron) into the material and, consequently, more efficient hydrophobicity of wood fibers
- No influence on the adhesion strength between the plate and the coating
- Optimal storage temperature from + 5°C to + 40°C
- Emulsion is fireproof
- The emulsion is environmentally friendly

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Homogeneous liquid without mechanical impurities. Color not specified.
Mass content of nonvolatile substances, %, min.	58
The reaction of medium, pH	8,5±1,5
Funnel viscosity, s	20±10
Stability on dilution, h, min.	24

SAFETY INFORMATION

Wax emulsions are fireproof, environmentally safe. Emulsions are not a dangerous cargo.

GUARANTEED SHELF LIFE 6 MONTHS

WAX EMULSION PE-25

FEATURES
Solvent-free water emulsion of paraffin for the concrete care.

APPLICATIONS

Advantages

- Prevents moisture evaporation from freshly applied concrete
- The emulsion is ready to use
- PE-25 forms an impermeable white film, which retains more than 90% of water in concrete for min. 3 days
- The treated concrete acquires a harder, less dusty surface
- Minimizes the appearance of cracks, as a result of the concrete drying / shrinkage
- The film remains for 3-4 weeks, depending on weather conditions. By this time, hydration is almost completed
- Applied by mechanical or pneumatic method
- Stable viscosity
- Does not stratify during storage
- Easy to apply due to homogeneous consistency
- Does not block the nozzles of the spray equipment
- Forms a visible film that is impermeable to water vapor, the effects of weather conditions
- Contributes to the moisture preservation in the fresh concrete for the concrete complete hydration
- Effectively protects the concrete surface from sun, wind and rain
- Does not contain solvents
- Low cost

GUARANTEED SHELF LIFE 6 MONTHS

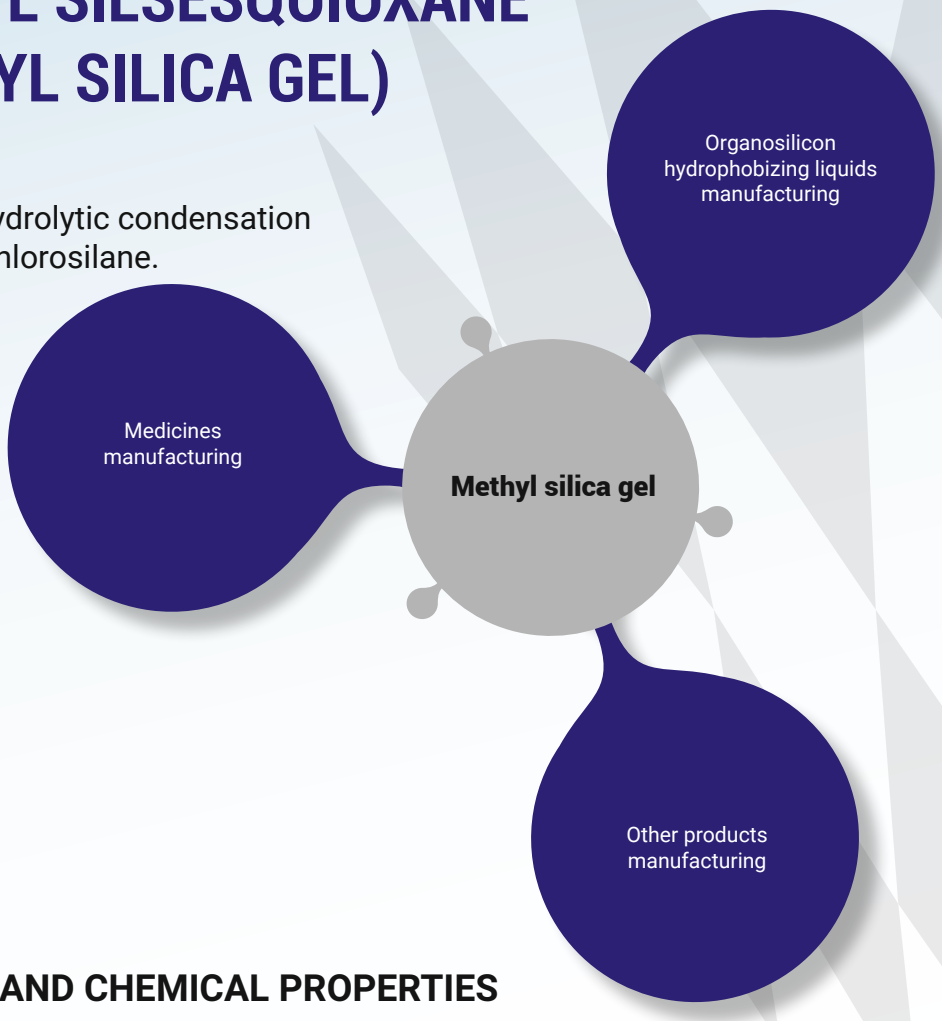
STORAGE

Tightly closed original packaging at a temperature of +5°C to +35°C. Store in a cool, dry, well-ventilated place, away from a fire hazard areas. Protect from direct sunlight and moisture. Do not expose to low temperatures.

METHYL SILSESQUIOXANE (METHYL SILICA GEL)

FEATURES

Product of hydrolytic condensation of methyltrichlorosilane.



PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance, color	Hard, wet polydisperse white product
Mass content of hydrogen chloride, %, max.	1,0
Mass content of nonvolatile substances, %, min.	40,0
Mass content of silicium, %, min.	18,8
Note 1. The product saves its' properties after defrosting. **Note 2.** It is normal (not a defect) if the mass fraction of non-volatile substances in the methyl-silica gel increases (due to the changing of the moisture content in the product) during transportation and storage.	

SAFETY INFORMATION

It is recommended to use appropriate protective clothing, gloves and goggles or face protection.

GUARANTEED SHELF LIFE 12 MONTHS.

Prevent damaging of the container. Keep away from precipitation and direct sunlight. Store in covered warehouses in original package.

PHENYLTRICHLOROSILANE $C_6H_5SiCl_3$

FEATURES
Liquid with strong odour, hydrolyzable with air moisture, soluble with inert organic solvents.

APPLICATIONS
- Manufacture of silicone oligomers and polymers.
- As initial monomer in synthesis of organosilicone resins, thermo- and electric insulating resins, lubricating oils, rubbers, and other polymeric organosilicon products.

PHYSICAL AND CHEMICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Molecular mass	211,567
Density, g/cm^3	1,321
Fraction of total mass, %: base material chlorine impurities	 min. 99,2 50,2 max. 0,80
Including diphenyl hydrogenous impurities	 max. 0,15 max. 0,30
Temperature, ˚C: boiling melting self-ignition flash	 201,0 -31,0 508,0 49,0
Refraction index	1,5238

GUARANTEED SHELF LIFE 12 MONTHS

SILICON TETRACHLORIDE $SiCl_4$

APPLICATIONS
Silicon tetrachloride is used for the manufacturing of orthosilicic acid esters and other organosilicone compounds, as well as highly disperse silica (aerosil).

PHYSICAL AND CHEMICAL CHARACTERISTICS

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Transparent liquid from colorless to light yellow
Mass fraction of the main substance,%, min.	99,5
Total mass fraction of impurities,%, max. including:	0,5
Trichlorosilane,%, max	0,1
Benzole, %, max	0,2
Other impurities, %, max	0,2
Mass fraction of iron, %, max	0,001

GUARANTEED SHELF LIFE 12 MONTHS

POLYTAMP

ORGANOSILICONE POLYMER GROUTING MATERIAL

FEATURES

Polytamp is a orthosilicic acid polyesters mixture of various polymerization degree with special additives.

2 stamps of Polytamp are produced:

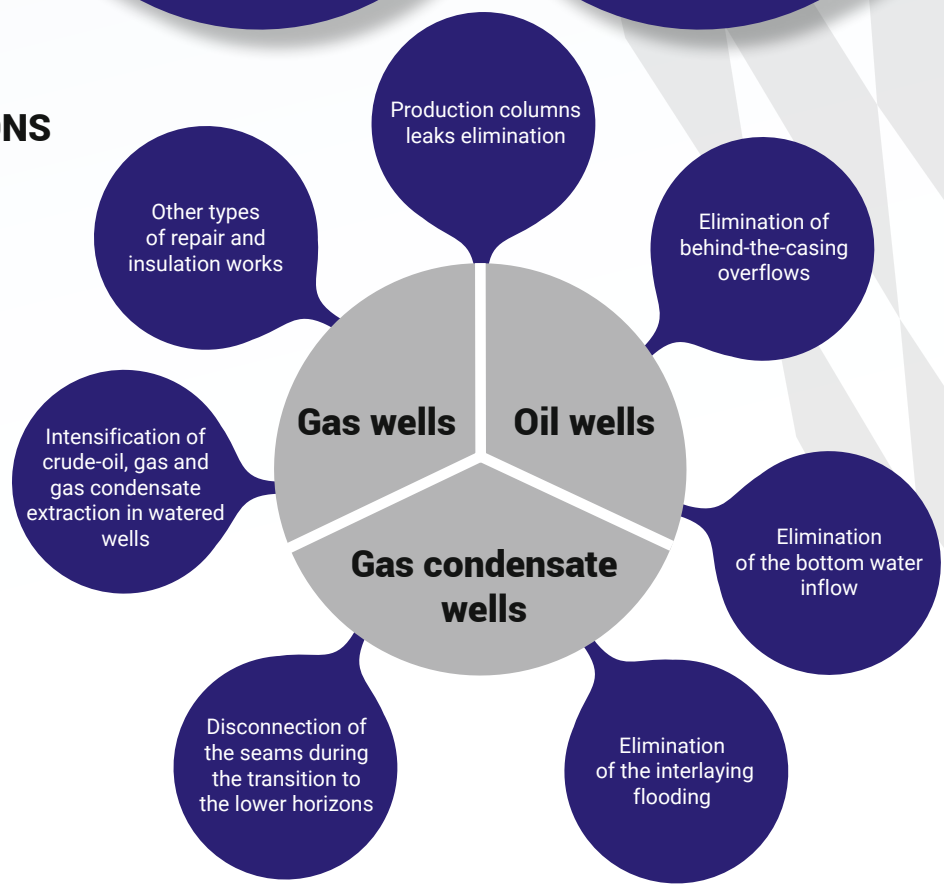
POLYTAMP-1

One component silicone material, which is hydrolyzed in the presence of water, forming liquid water-soluble products that subsequently cured (gelled).

POLYTAMP-2

A two-component material that can be grouted under various conditions by the customer require, without the other components addition, including water, while being able to form a homogeneous system with water

APPLICATIONS



Advantages

- High degree of factory readiness of Polytamp
- Easy to prepare working compositions
- The properties stability of Polytamp and compounds based on it
- Using of standard equipment during repair insulation work
- Application in the liquidation of different types of water inflows
- The ability to adapt for different types of repair insulation works
- The possibility of coiled tubing units using
- Duration of repair insulation works is from 6 hours to 10-15 days

PHYSICAL AND MECHANICAL PROPERTIES

NAME OF PARAMETER AND UNIT OF MEASURE	STANDARD
Appearance	Liquid
Color	From light yellow to dark brown
Freezing point, °C	<-50
Dynamical viscosity, mPa*s	1-30
Density, g/cm^3	0,98-1,100
Tare	Steel or p/e drums of 200 kg
Transportations	Railway and auto
The amount of precipitate after dilution with water in Ratio of 1: 3, %, max.	7
The gelling ability at a temperature (75±5)°C, material to water ratio = 1 : 3	from 1 to 8 hours

SAFETY INFORMATION

The product is flammable, observe the fire safety technique when processing.

GUARANTEED SHELF LIFE 12 MONTHS

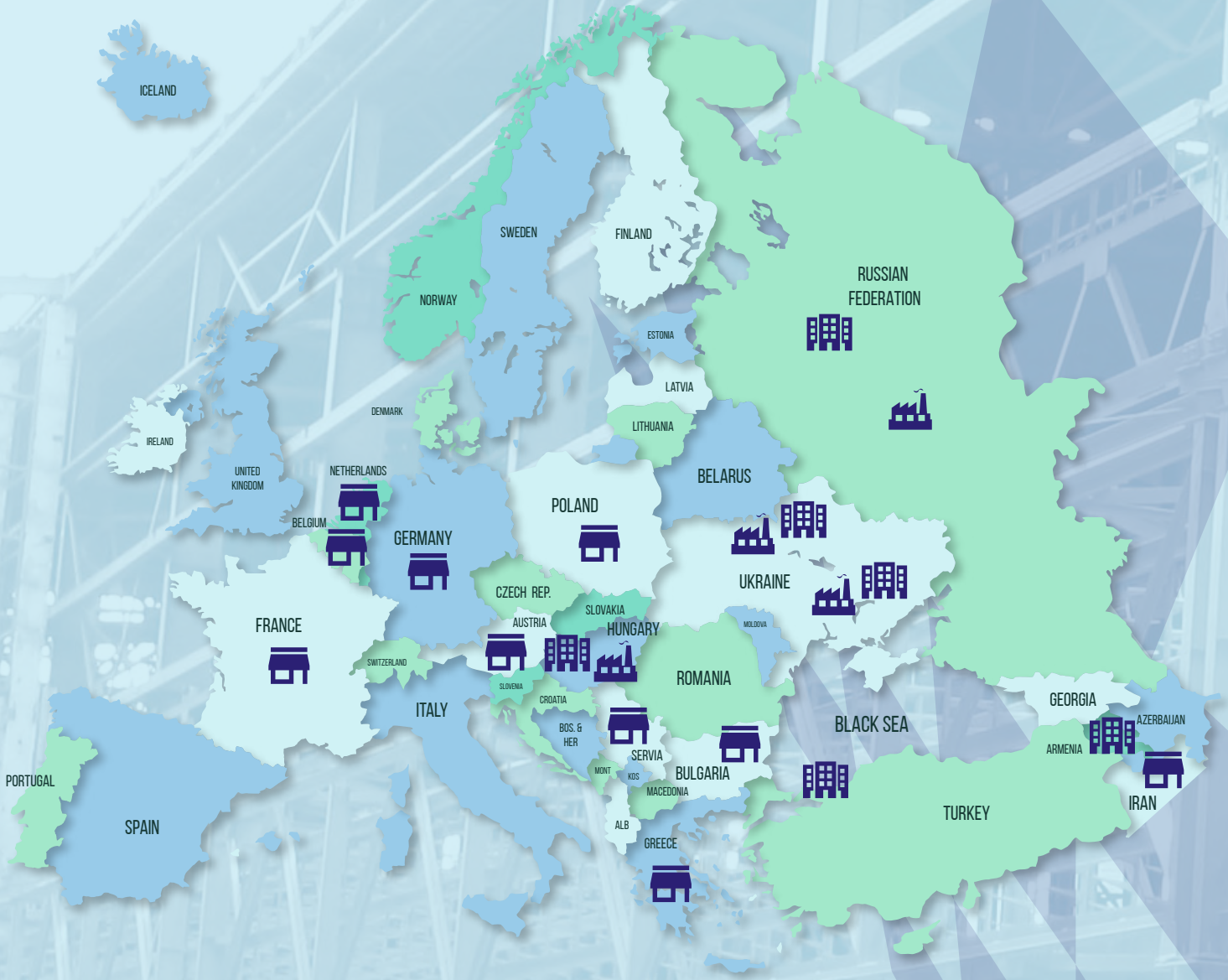
Store in tightly closed original packaging at a temperature between -60°C and + 40°C. Store in a cool, dry, well-ventilated place, away from areas that pose a fire hazard. Protect from direct sunlight and moisture.

KORONA GROUP GEOGRAPHY

Production plants

Trading companies

Representatives



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