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ISO 9001:2008
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AUXILIARY AGENTS

accompanying silicone rubber products

Auxiliary preparations are designed to enhance the utility value of single-component sealants and two-component silicone rubber products, especially their adhesion to a base, thus broadening the range of their application.

Lukopren Paraffin Separator

This is a solvent-based separating agent that is used to mutually separate single-component sealants **LUKOPREN S** and two-component rubber materials **LUKOPREN N.**

Lukopren Separator

This is a water-borne separating agent that is used to mutually separate single-component sealants **LUKOPREN S** and two-component rubber materials **LUKOPREN N.**

Lukopren Odmašťovač (Degreasing agent)

Preparation for the degreasing of non-porous surfaces prior to the application of one-component silicone sealants **LUKOPREN S** as well as for the removal of their vulcanized products. It can also be used to remove unhardened polyurethane assembly foam.

Lukopren Primer B 733

Bonding agent for the enhanced adhesion of single-component **LUKOPREN S** sealants for porous, especially silicate bases.

Lukopren Primer A

Bonding agent with an acidic adhesion system for the enhanced adhesion of two-component rubber products **LUKOPREN N** for non-porous bases and for the adhesion of single-component **LUKOPREN S** sealants to less appropriate non-porous bases.

Lukopren Primer N

Bonding agent with a neutral adhesion system the enhanced adhesion like in the case of **LUKOPREN PRIMER A**; to be used when a bonding agent with acidic reaction cannot be applied.

Lukopren Paraffin Separator

Appearance and properties

Non-viscous, colorless to mildly turbid solution of paraffin in an aromate-free solvent. After application to a surface and evaporation of the solvent, the preparation creates a thin continuous film with excellent separation properties with regard to silicone rubbers and sealants.

Application

This preparation is designed to separate the surface of two-component silicone rubbers **LUKOPREN N** (rubber-rubber contact) during the production otherwise two and multiple-component molds; to separate HTV (hot-vulcanized) rubbers, RTV (regular temperature-vulcanized) two-component silicone rubbers and single-component rubbers. It facilitates the production of silicone rubber castings in a silicone mold or the production of so-called dismountable joints. It is also used for the separation of surface where aqueous **LUKOPREN SEPARATOR** cannot ensure the thorough soaking of a base (it folds into balls).

Method of application
LUKOPREN PARAFFIN SEPARATOR is designed for direct application following its homogenization by shaking. To prevent the evaporation of the solvent from the separator, the bottle has to be closed carefully. Paraffin contained in **LUKOPREN PARAFFIN SEPARATOR** set out of solution by the temperature under 20 °C in form milky white cloud or floccules. For the right function of the Separator is necessary this cloud get out by warming of the bottle onto room temperature (over 20 °C) and the separation do by this temperature.
The separator can be applied with a flat brush of appropriate width, depending on the size and articulation of the separated surface. It is necessary to make sure that the separator is applied in an even layer and that it covers the entire surface. In case of especially fine reliefs, namely the facial parts of statues, the separator has to be applied in a thin layer, and must not leak into relief details as this would compromise the authenticity of the imprint. Should this be the case, it is advised to apply a separation layer by means of a cotton swab on a skewer. In some cases, however, it is more appropriate to create a thicker separation layer by applying several separator coatings – for instance, when producing so-called dismountable joints or in case of silicone-silicone separation.
The separation solution must also be applied to all surrounding areas which could be accidentally penetrated by poured rubber. The solvent begins to evaporate from the applied preparation within 10 min. The created film is wax-soft and its adhesion to the base is poor. Therefore, it is necessary to protect it from abrasion and to prevent the mold from bending stress.
Remove the mold cautiously, proceeding from its periphery to the center. The separation film can be cleaned with a cloth soaked in **LUKOPREN DEGREASER** and then dried.

LUKOPREN PARAFFIN SEPARATOR can be colored with organic paints to look more distinct. Powder pigment Ostaplast Blue R in an amount of 0.07% weight (manufactured by Synthesia a.s.) has successfully passed paint tests. A colored separator better demarcates a separated area. The only disadvantage can be the penetration of the separated silicone rubber with the paint that cannot be removed.

Lukopren Separator

Appearance and properties
Low-viscous, clear, colorless to mildly yellowish liquid whose miscibility with water is unlimited. After application on a surface and once the water content has evaporated, this preparation creates a wax-like film that exhibits excellent separation effects in connection with single-component silicone sealants **LUKOPREN S** and two-component silicon rubbers **LUKOPREN N**. The film can be removed with lukewarm water.

Application
LUKOPREN SEPARÁTOR is used to separate all types of silicone sealants and rubbers **LUKOPREN** from the surfaces of glass, enamel, galvanized tin, steel, aluminum, wood, PVC, polycarbonates, marble, granite, etc. Its separation properties are employed during the separation of models when producing molds of two-component silicone rubbers **LUKOPREN N** and when producing dismountable joints by means of single-component silicone rubbers **LUKOPREN S** (this often applies to dismountable flange joints on mechanical equipment, window and door sealing).

Method of application
LUKOPREN SEPARATOR is formulated for direct use. It can be diluted with water. It is applied on to a surface by means of a brush. A rugged base must be coated by means of a cloth or of a cotton swab on a skewer so that film thickness is as even as possible. The rate of separation film drying depends on temperature. It can be accelerated with a stream of hot air (hair drier, scorch gun). A dry separation film has good mechanical strength and feels to paraffin to touch. Its separation properties prove good in contact with single-component and two-component silicone sealants and rubbers. The next step of the procedure is production of either a mold or a dismountable joint. Once vulcanization is complete, depending on the type of applied sealant or rubber and its thickness, the mold is removed or the dismountable joint is separated. The separation film is then washed off with lukewarm water and dried.
When separating silicone-silicone type joints (for instance, divided molds of silicone rubber) it is better to use **LUKOPREN PARAFFIN SEPARATOR**. **LUKOPREN SEPARATOR** contains water and tends to fold up into balls on a hydrophobic silicone surface. Therefore, it is quite difficult to create a continuous separation film of Lukopren Separator on a silicone base.

Lukopren Degreaser

Appearance and properties

Colorless, clear liquid whose miscibility with water is unlimited

Application

This agent is used to degrease nonporous surfaces before application of single-component silicone sealants **LUKOPREN S** and to remove vulcanized sealants and PU assembly foam.

Method of application

It is used to degrease all nonporous materials such as glass, enamel, ceramics, granite, metals and all painted surfaces. It is applied by means of a cloth soaked with the agent whereas the cloth has to be moved in one's hand so as to wipe the treated surface only with the clean fabric of the cloth.

Vulcanized single-component silicone sealants can be removed with **LUKOPREN DEGREASER** within 24 hours from application and only if they form a thin layer only; polyurethane foam has to be removed within 30 hours from application. Removal of older vulcanized materials is rather difficult. It is advised to use a sharp tool (razor blade, scalpel) to cut off as much of the sealant as possible. Subsequently, the remaining surface is covered with a cloth soaked with **LUKOPREN DEGREASER** and then covered with a foil. The degreaser is let to work for several minutes until the vulcanized material becomes swollen. Afterwards, the vulcanized material can be broken off and its residue is then removed with a cloth soaked with the preparation.

Lukopren Primer B 733

Appearance and properties

Low-viscous solution of methyl silicone resin in nonpolar organic solvents. It has good penetration properties in contact with porous, especially silicate bases.

Application

This preparation is used as a bonding agent (primer) when sealing porous silicate surfaces with single-component silicon sealants **LUKOPREN S**. The preparation is partially absorbed by a base while simultaneously creating a microfilm on the surface of the porous base, thus ensuring strong and long-term adhesion of the joint. These properties are highly desirable when sealing expansion bonds and their dynamically stressed joints.

LUKOPREN PRIMER B 733 is formulated for direct use; therefore, it does not have to be diluted. Tools used (a brush) can be cleaned with chemical gasoline or with paint solvent.

Method of application

LUKOPREN PRIMER B 733 is applied in one layer onto dry, dusted and degreased areas by means of a brush. Some of the coat is absorbed by the base and the remainder creates a continuous film. Once dry – i.e. after 30 to 60 minutes (20 °C) – the surface can be applied with single-component silicone sealant. At lower working temperatures, the time required for the drying of **LUKOPREN PRIMER B 733** prolongs accordingly. It is not advised to perform sealing at temperatures below the freezing point. Approximate consumption is 250 ml/1 m^2.

Lukopren Primer A

Appearance and properties

Low-viscous, clear to mildly yellowish, pungent solution of the active substance in organic solvent.
Acetic acid is released during a reaction.

Application

LUKOPREN PRIMER A is used se as a thin-layer bonding agent (primer) to ensure the adhesion of two-component silicone rubbers **LUKOPREN N** by way of creating a chemical bond and to improve adhesion to certain types of bases when working with the **LUKOPREN S** sealants. It is not suitable for use on alkali bases and for applications that are negatively affected by the working of acetic acid (for instance, aluminum bases).

Method of application

LUKOPREN PRIMER A is applied in as thin as possible a layer onto the degreased surfaces of to-be-connected areas by means of a cloth, or with a cotton swab on a skewer. Its application with a brush is not recommended, as the layer would be too thick. A solvent and acetic acid are evaporated during drying and a chemical reaction. This

is why work has to be performed in a well-ventilated room or in a fume hood. The surfaces coated with a primer need 20 minutes (i.e. the time of solvent evaporation) to become ready for the application of a silicone sealant or rubber. A packaging unit carrying **LUKOPREN PRIMER A** has to be resealed carefully. Contact with humidity deteriorates this preparation.

Lukopren Primer N

Appearance and properties

Low-viscous, orange to mildly brownish liquid with characteristic smell of organic solvents that do not contain hydrocarbons. Neutral bonding agent.

Application

LUKOPREN PRIMER N is a bonding agent (primer) that improves the adhesion of silicone sealants **LUKOPREN S** and rubbers **LUKOPREN N** to nonporous bases. This preparation is mainly suitable for those applications that are sensitive to an acidic environment (corrosion, electronics) and for those applications in which **LUKOPREN PRIMER A** did not prove effective.

Method of application

It is applied in as thin a layer as possible onto the degreased surface of connected areas with a cloth or with a cotton swab on a skewer. Its application with a brush is not recommended, as the layer would be too thick. Considering the evaporation of the solvent and the chemical reaction of the active substance, the working area has to be ventilated properly during application. After 20 minutes from the application (i.e. after the evaporation of the solvent) the surfaces are prepared for the application of silicone sealant or rubber. A packaging unit carrying **LUKOPREN PRIMER N** has to be resealed carefully. Contact with humidity deteriorates this preparation.

Basic parameters of auxiliary preparations

Lukopren	Separator	Paraffin separator	Degreaser	Primer B 733	Primer A	Primer N
Flammability	None	Flammable	Highly flammable	Highly flammable	Highly flammable	Highly flammable
Density (g/cm^3)	1.02	0.79	0.79	1.00	0.84	0.81
Packaging	0.25 l	0.2 l	1 l	1 l or 17 kg	0.2 l	0.2 l
Storage temperature (°C)	+5 to +30	up to +30	up to +30	up to +30	+5 to +30	+5 to +30
Storability (months)	24	24	24	12	12	12

Health protection

LUKOPREN PARAFFIN SEPARATOR, **LUKOPREN SEPARATOR**, **LUKOPREN DEGREASER**, **LUKOPREN PRIMER B 733**, **LUKOPREN PRIMER A** and **N** are classified as dangerous products; therefore, they can be handled only if the advise shown on labels and in safety data sheets is observed.