

SEALANTS FOR MANUFACTURING THERMO-INSULATING GLASS

High-quality elastic two-component polyurethane sealant for the production of thermal insulating glass.

PROPERTIES

- Excellent adhesion to clean surfaces such as glass, aluminium, stainless steel and hybrid spacers
- Suitable for robotic application
- Sealant does not flow when applied vertically
- Low vapour permeability
- Low gas permeability
- Compatible with TKK materials used for production of thermal insulating glass
- Contains no solvents
- Color: Black

TESTS AND CERTIFICATES

IFT certificate according to the standard EN 1279: 2018

- part 2 [long-term test method according to EN 1279-2:2018-07]
- part 3 [long-term test method according to EN 1279-3:2018-07]
- part 4 [requirements of the standard 1279-4:2018-07 chapter: 5.3, 5.5.2 in 5.5.3]
- part 4 [requirements of the standard 1279-4:2018-07 dewing of components between the panes of thermal insulating glass]
- part 6 [determining the penetration index I_{av}]

USE

- Secondary sealant for sealing thermal insulating glass
- Suitable for the production of double or multi-layer thermal insulating glass]
- Always use in combination with primary sealant TKK GE BUTMELT

TECHNICAL DATA

Unhardened sealant

Base:	Hidroxy- Terminated polybutadien HTPB
Appearance:	A comp. beige paste, B comp. : black liquid or paste
Curing mechanism:	two-component sealant
Specific gravity:	A comp. $1,78 \pm 0,04$ kg/l B comp. $1,10 \pm 0,03$ kg/l [liquid] ; $1,24 \pm 0,03$ kg/l [paste]
Pot life :	>30 min [depending on the temperature]
Skin formation time:	120-240 min [depending on the temperature]
Mixing ratio by volume:	10 A : 1B
Mixing ratio by weight:	100 : 6,2 [liquid B component] 100 : 7,0 [paste B component]

Hardened sealant

Shore-A hardness [ISO 886]:	>30 , 4h >40 , 24h >60-65, 28 days
Tensile strength [EN 1279-4:2018]:	>0,6 MPa
Volatile content [EN 1279-6:2018]	<1%
Vapor permeability [EN 1279-4:2018]:	$\leq 2,7$ [g H ₂ O]/m ² *24h

Gas permeability [EN 1279-4:2018]: $\leq 0,64 \text{ [g H}_2\text{O)]/m}^2\text{h}$
Application temperature: from +15 °C till +30 °C

Values may vary depending on temperature, humidity and type of bonded substrate

APPLICATION

To achieve good adhesion, the glass and spacers must be clean, dry, grease-free and dust-free. The ideal working temperature is from +15 °C till +30 °C. The lower the temperature, the higher is the viscosity of the material. If we want the same amount on the gun, it is necessary to raise the pressure on the pump for this purpose. The reverse process occurs at higher temperatures above 30°C. Preparation of the mixture: If we use the automatic mixing mode, we must ensure the correct mixing ratio. Mixing ratio by volume is 10 : 1. The maximum permissible volume deviation is $\pm 10\%$. Too much hardener will slow down the initial curing and the final hardness will be higher. A lack of hardener will slow down the curing and the final properties will be worse-material will be still tacky after 24h. The mixed sealant must be used in a time that is shorter than the pot life. Curing speed also depends on the temperature of the room in which the thermal insulating glass is manufactured and stored. At +10 °C hardening is extended twice, at 30°C the workability time is reduced by half.

PACKAGING

- 200L drum A component
- 200L drum or 20L hobcock B component-hardener

STORAGE

6 months in a dry and cold place at a temperature between 15°C and 25°C, in originally closed packaging. If stored at temperature under 15°C the sealant should be established at a production temperature 2 days before application. If stored at $T > 30^\circ\text{C}$, the product's viscosity decreases and the product turns liquid. STORE AWAY FROM THE SUNLIGHT.

HEALTH, SAFETY HANDLING AND DISPOSAL INFORMATION

Additional information on safety, safe handling instructions and personal protective equipment as well as disposal information are available in a safety data sheet. Safety data sheet is available upon request. You can also ask your TKK distributor for a copy.

WARNING

Instructions contained in this document are based on our research and experience, however, due to specific conditions and working methods we recommend that you perform preliminary tests prior to any application of our products.



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