

# **FLEXIBLE SEAL & BOND**



# ELASTIC ADHESIVE AND SEALANT ON THE BASIS OF A HYBRID MS POLYMER SUITABLE FOR BONDING AND SEALING MOST MATERIALS.

#### **PROPERTIES**

- Excellent adhesion to most construction and metal materials - concrete, brick, wood, aluminium, iron, stainless steel, copper and various types of plastic.
- Good output even at low temperatures.
- Does not slump in vertical joints.
- Good adhesion on moist surfaces.
- Excellent mechanical properties and hardness.
- Environmentally friendly; it is solvent, isocyanate and silicone free.
- Totally chemically neutral and odourless.
- Can be painted with most paints and varnishes on the basis of epoxy, polyurethane and water.
- Shrinkage during hardening process below 1 %.
- Resistant to atmospheric effects, UV-light and ageing.
- Does not cause corrosion.
- Chemical resistance:
- Good chemical resistance to: water, aliphatic solvents, mineral oils, fat, low concentration inorganic acids and bases;
- Poor chemical resistance to: aromatic solvents, concentrated acids, chlorinated hydrocarbons.
- Colour: grey RAL 7030 and white; others available on demand.

#### **TESTS AND CERTIFICATES**

EN 15651-1,3,4 ISO 846 EN 1186, EN 13130 in CEN/TS 14234 EMICODE EC 1+ Class A+

CE fungicide test test for usage in food industry emissions test emissions test

#### USE

- For gluing window sills and slats.
- For mounting and sealing of various kitchen elements.
- For sealing joints in silos, storage tankers, containers, vacuum systems and compressed air networks.
- For gluing boards and roof covering.
- For gluing structures subject to vibrations.
- The product is recommended for sealing and repairing joints in rooms where mould can form.
- For sealing and gluing different materials in the automobile and shipbuilding industry.

#### **TECHNICAL DATA**

### Fresh sealant

Base hybrid MS polymer

Appearance paste

Curing mechanism by air humidity Specific gravity  $1500 \pm 40 \text{ kg/m}^3$ 

Skin formation time 23 °C/50 % rel. humid. 25  $\pm$  5 min. Hardening time 23 °C/50 % rel. humid. 2-3mm/day

Application temperature between +5 °C and +30 °C

## **Cured sealant**

Hardness Shore A	ISO 868	35-40
Change in volume	ISO 10563	< 1.5 %
Tensile strength	ISO 8339	1.1-1.5 MPa
Module E 100 %	ISO 8339	> 0.7 MPa
Elongation at break	ISO 8339	150-250 %
Tensile strength	ISO 37	2-2.3 MPa
Elongation at break	ISO 37	200-300 %

Temperature resistance between -40 °C and +90 °C

#### **APPLICATION**

Prior to use it is recommended to perform an adhesion test to verify adhesion of the sealant to the substrate.

# **Surface preparation**

The surface of the joint must be dry, hard, clean, dust and fat free.

Remove all separated and badly attached pieces.

# Joint and cartridge preparation

- For good adhesion onto porous materials use TKK SEAL silicone & hybrid primer.
- If you want joints to look nice tape the edges with a masking tape.
- Cut the cartridge at the top and screw on the nozzle, which has to be cut according to the width of the joint and placed in the gun. During work interruption release the handle on the gun and pull the piston back.
- The sealant should be applied as evenly as possible.
- At the end, use a TKK SEAL smoothing tool a smoothing instrument, or a TKK SEAL Smoothing agent soaped finger to level the sealant before the skin starts to form. It is very important to press the sealant well against the surface to be sealed.
- Remove the masking tape before the sealant starts to harden.
- Fresh sealant and tools can be cleaned with the TKK CLEAN PROTECT tool cleaner, hardened sealant should be removed mechanically first and then with a cleaner for hardened silicone – TKK CLEAN PROTECT silicone remover or TKK CLEAN PROTECT universal cleaner.

# Correct dimensioning of expansion joints:

For optimal elasticity of a sealant the correct ratio width: depth is of extreme importance. The ratio is 2:1,1:1 maximum. Sealant should not adhere to the bottom of the joint gap but only to its sides. This can be achieved with the use of TKK SEAL Back filling tape. The minimum and maximum joint width is 6 mm and 20 mm, respectively.

Joint length	Joint width (mm)								
(mm)	4	6	8	10	12	15	20		
6		8.6	6.4	5.6	4.6				
8			4.9	3.8	3.2	2.6			
10				3.1	2.6	2.1	1.6		
12					2.2	1.8	1.2		
15						1.3	1.0		
20							0.8		

The table shows how many linear meters
of joints we can seal with
one 300 ml cartridge relative to the width and depth of the joint.

### **PACKAGING**

- 300 ml cartridge.
- 600 ml sausage.

### **STORAGE**

15 months in dry space at temperature range between +5 °C and +25 °C, in originally closed packaging, sausage 18 months.

# **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.

