

## MS ADHESIVE SEALANT (MS40)

### ONE COMPONENT MS POLYMER ADHESIVE SEALANT

**MS 40** is a one-component sealant and a strong adhesive on the basis of a hybrid MS polymer; it is elastic and is used for sealing and gluing most construction materials. It is environment friendly.

#### APPLICATIONS AND USES

- Metal and tile roofing, all metal lap joint waterproofing and sealing
- Sealing and gluing various materials
- Joints in plastic, metal or concrete
- Floor joints
- Weatherproofing caravans and trucks
- It is useful where joints have to be painted or where silicone sealants are not suitable
- For dilatation joints in construction, on outer walls, in green-houses or for sealing window frames.

#### CHARACTERISTICS

- Excellent adhesion on most construction material - concrete, brick, wood, aluminium, iron, stainless steel, copper and various plastics
- Good output even at low temperatures
- Does not slump in vertical joints
- Excellent characteristics, good elasticity and flexibility
- Environment friendly: contains no solvents, isocyanate and silicones
- Totally chemically neutral and odourless
- Can be painted
- Shrinkage lower than 1%
- Resistant to various atmospheric conditions and aging, also UV resistant
- Chemical resistance: Good to Water, aliphatic solvents, mineral oils, fat, low concentration inorganic acids and bases. Bad or not resistant to Aromatic solvents, concentrated acids, chlorinated hydrocarbons

#### TECHNICAL DATA

##### Uncured Sealant

<b>Chemical basis</b>	hybrid MS Polymer
<b>Form</b>	paste
<b>Curing mechanism</b>	moisture curing
<b>Specific gravity</b>	1460 ± 10 kg/m <sup>3</sup>
<b>Skin formation time</b>	25 +/-5 min (23°C/50% rel. humid)
<b>Hardening time</b>	2-3mm / day (23°C/50% rel. humid)
<b>Application temperature</b>	+ 5°C to + 30°C

##### Cured Sealant

<b>Hardness Shore A</b>	35 - 40 (ISO 868)
<b>Change in volume</b>	<1% (ISO 10563)
<b>Tensile Strength</b>	1.2 – 1.5 MPa (ISO 8339)
<b>Module E 100%</b>	>0.8 MPa (ISO 8339)
<b>Elongation at break</b>	200 – 300% (ISO 8339)
<b>Tensile Strength</b>	2.4 - 3 MPa (ISO 37 rod 1)
<b>Elongation at break</b>	250% - 350% (ISO 37 rod 1)
<b>Temperature resistance</b>	- 40°C to + 90°C

#### DIRECTION FOR USE

**Surface preparation:** The surface of the joint must be hard, clean, dust and fat free. Remove all separated and badly attached pieces.

**Joint and cartridge preparation**

- For better adhesion onto porous surfaces use Primer KVZ 16.
- If you want joints to look nice tape the edges with 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, level the sealant with an appropriate instrument or a well soaped finger.
- Remove the masking tape before the sealant starts to harden.
- Fresh sealant and tools can be cleaned with alcohol.

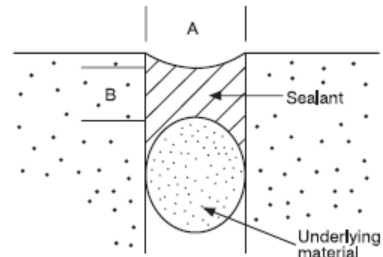
**Correct dimensioning of dilatation joints**

For the optimal elastic characteristics of the sealant, a correct width/depth ratio is important (2:1) or a maximum of 1:1. The sealant must not grip the bottom of the joint, but only its sides. We can achieve this with the use of underlying materials, onto which the sealant has no adhesion (foamed polyethylene, polyurethane). The minimum joint width is 6 mm, the maximum 20 mm.

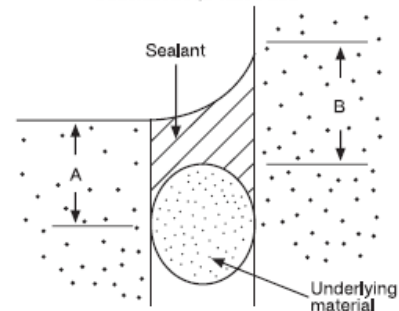
Joint depth (mm)	Joint width (mm)					
	6	8	10	12	15	20
6	8,3	6,2	5,0	4,2		
8		4,7	3,7	3,1	2,5	
10			3,0	2,5	2,0	1,5
12				2,1	1,7	1,2
15					1,3	1,0
20						0,75

The table shows how many linear metres of joints we can seal with one 290 ml cartridge relative to the width and depth of the joint.

Correctly dimensioned joint  
A:B = 2:1  
Dimension A,B min 6 mm



Correctly executed angled joint  
Dimension A,B min 6 mm



**GREEN BUILDING COUNCIL AUSTRALIA - GREEN STAR  
BRANZ TEST DA0384 - TENSILE ADHESION  
PERFORMANCE OF A SEALANT ON THREE MEMBRANES**

## PACKING

290 ml cartridges (in cartons of 12 pieces)

600ml sausages

**Colour:** grey, white, others on demand

## STORAGE

12 months in a dry and cool storage place at temperatures between + 5°C and + 25°C and kept in the originally sealed package.

## SAFETY PRECAUTIONS

There are no known safety issues concerning the MS 40 for use in construction.

## DISCLAIMER

*The information, and, in particular, the recommendations how to use and apply the product, are given in good faith based on our current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with manufacturer's recommendations. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambience. Climatic disparity in temperature, humidity and porosity of substrate may impinge on values. The user of the product must test the product's suitability for the intended application and purpose. MERZ Construction Products Ltd does not give any warranty express or implied as to the suitability of this product for your particular use, because the usage of this product is beyond the control of MERZ Construction Products Ltd. MERZ Construction Products Ltd does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.*

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