

## Technical Data Sheet

**Properties:** AKEMI® Wondernail Construction Sealant is an elastic 1-component sealant based on advanced MS Polymer technology. It has good adhesion to various substrates without priming. It is a good weather-proofing sealant which cures in contact with air humidity. The product is characterized by the following properties:

- excellent UV-resistance
- ±50% movement capability
- blister-free hardening
- good adhesion on many surfaces without primer
- free of silicone, oil, solvents, isocyanate and halogens
- less dirt streaking due to low static charge
- mat finish
- paintable

**Application Area:** AKEMI® Wondernail Construction Sealant is a special sealant. It is used to ensure elastic/flexible adhesion between two different or similar surfaces. Recommended for sealing concrete joints like wall panel joints, expansion joints, control joints etc. Façade cladding designed with metal panels or natural stone, anodized aluminum, masonry, porcelain, coated metal, finished wood, epoxy and polyester panels, UPVC, polystyrene and stainless steel. Do not use on plastics like PE, PP, PTFE (Teflon), neoprene, bituminous surfaces etc.

**Instructions for Use:**

1. Contact surfaces must be firm and free of dust, fat and rust. On concrete, clinker and tiles use AKEMI® Cleaner A. Use AKEMI® Cleaner I for plastics and painted surfaces.
2. Working temperature +5°C to +40°C (contact surface must be dry).
3. Adhere both surfaces before the sealant begins to form a skin.
4. The rate of full cure depends on the temperature and availability of relative atmospheric humidity to the adhesive.

**Special Notes:**

- Use AKEMI® Liquid Glove/gloves to protect your hands.
- Under surfaces coated with tar or bitumen causes a discolouration of sealant. The same applies to elastomers such as EPDM, EPT and neoprene.
- The product is not suitable for use where the surface is constantly wet or for swimming pools or submerges in water.
- Not paintable with alky resin paints.
- Hardened sealant can be removed mechanically. If it is not yet hardened, it can be removed with AKEMI® Cleaner A or Cleaner I, depending on the base surface.
- Sufficient humidity supply is necessary during curing time in order to avoid failure in the hardening process.

<b>Technical Data:</b>	System:	Wondernail Construction Sealant (MS-hybrid polymer)	
	Colour:	white	
	Consistency:	paste-like, soft	
	Density:	1.53 g/ml	
	Tensile strength:	1.0 N/mm <sup>2</sup>	ASTM D 412
	Elongation at break:	530%	ASTM D 412
	Shore A hardness:	27	ASTM C 661
	VOC content:	46.61 g/l	USEPA Method 24
	Service temperature:	-20°C to +90°C	

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Application temperature: +5°C to +40°C  
 Cure depth: 2 – 3 mm/24 h (at 25°C & 50% R.H.)  
 Tack-free/skin form time: 20 – 40 min (at 25°C & 50% R.H.)

### Joint design:

- joint dimension should be designed by taking into consideration the movement capability of the sealant and the anticipated joint movement
- generally the joint width-to-depth ratio is 2:1 for joint width  $\geq 12$  mm, or 1:1 for joint width  $< 12$  mm
- joint width: minimum = 6 mm, maximum = 35 mm \*
- joint depth: minimum = 6 mm, maximum = 12 mm

\* sealing joint with larger joint width is possible but sealant may sag in vertical position

### Coverage:

Width	Depth	Coverage (290 ml) *	Coverage (600 ml) *
6 mm	6 mm	7.32 meter	15.15 meter
10 mm	10 mm	2.64 meter	5.45 meter
20 mm	10 mm	1.32 meter	2.73 meter
25 mm	12 mm	0.88 meter	1.82 meter

\* the coverage figures shown above are approximate lineal meter run based on 10% wastage assumption. Actual coverage may vary.

▪ Calculation formula:  $X / [(Y \times Z) \times 1.1] = \text{coverage}$

X = volume of cartridge (or sausage) in ml

Y = joint width in cm, Z = joint depth in cm

1.1 = 10% wastage assumption,

**Coverage** = lineal meter run in cm per cartridge (or sausage)

### Storage:

09 months (cartridge) / 12 months (sausage) approx. if stored in cool place (below 30°C), free from frost and in tightly closed original container.

### Health & Safety:

Read Safety Data Sheet before handling or using this product.

### Important Notice:

The above information is based on the latest stage of development and application technology. Due to a multiplicity of different influencing factors, this information – as well as other oral or written technical advises – must be considered as non-binding hints. The user is obliged in each particular case to conduct performance tests, including but not limited to trials of the product, in an inconspicuous area or fabrication of a sample piece.

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