

Technical Data Sheet

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Properties:

AKEMI® Composil is a single-component, joint sealing material on the basis of silicone rubber which hardens in contact with atmospheric moisture. The product is characterized by the following properties:

- excellent working and smoothing properties
- fungicidal properties
- does not discolour at the edges, therefore suitable for all kinds of natural stone
- practical movement absorption 25%
- builds a skin within 10 - 15 minutes
- stable at temperatures between -40°C and +150°C
- excellent weather resistance
- high resistance against abrasion, tearing and notching
- compatible with paint
- wide range of colours - more than 50 colours - for colour-matched joint sealing of many high-quality materials of natural stone, quartz, and large-size ceramics
- colour charts for the different materials of all renowned producers see www.akemi.de/ColourCharts
- chlorine-resistant in the disinfectant concentration for swimming pools as well as stress-resistant against mechanical cleaning methods

Application Area:

AKEMI® Composil is a special sealing material for colour-matched expansion and connecting joints in combination with high-quality natural stone, quartz and large-size ceramics. In addition this product has a very good adhesion on natural stone, plaster, glass, wood and many kinds of metal and plastic. AKEMI® Composil is also suited for underwater areas and those exposed to permanent humidity in swimming pools, sauna, public showers and changing rooms as well as pressure vessel construction.

Instructions for Use:

1. Contact surfaces must be dry and clean and free of fat and dust; Cleaning with AKEMI® Cleaner A on natural and artificial stone, quartz, large-size ceramics, tiles, glass, non-painted wood and metal. Cleaning with AKEMI® Cleaner I on plastics and painted surfaces.
2. In order to prevent adhesion on three flanks and in the event of deeper joints AKEMI® joint cords should be used; closed-cell polyethylene (PE) joint tapes for wet/moist rooms (bathrooms, saunas etc.), for outdoors and areas exposed to permanent humidity, otherwise open-cell polyurethane (PUR) joint cords. Joint size: 3 x 5mm at the least.
3. Areas flanking the joint should be protected with AKEMI® special adhesive masking tape.
4. In wet/moist rooms and areas exposed to permanent humidity, outdoors and by particular surfaces (see primer table) we recommend the application of our primers on the flanks of the joints.
5. Working temperature +5°C - +40°C.
6. After application the silicone must be smoothed within 10 - 15 minutes. The best results are achieved with AKEMI® Smoothing Agent (except mat-design colours).
7. Remove the adhesive masking tape in the direction of the joint prior to skin formation.

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8. The hardening process, which is dependent upon the thickness of the layer, the temperature and the relative atmospheric humidity, takes approx. 1 - 3 mm per 24 hours.
9. Tools can be cleaned with AKEMI® Cleaner A.

Special Notes:

- To protect the hands, use AKEMI® Liquid Glove.
- Discolouration occurs on tar and bitumen coated surfaces as well as on elastomers such as EPDM, APTC or neoprene.
- Test the compatibility with the sealant prior to using the product on coated surfaces (e.g. paints, lacquer coats).
- To prevent staining, do not apply the primer on visible surfaces.
- Remove excess smoothing agent to avoid staining.
- No or limited adhesion on plasticized plastics as well as on PE, PP and Teflon.
- Sealing materials with fungicide additives are not to must not be used in the construction of aquariums.
- Hardened joint sealing material can only be removed mechanically. Joint sealing material not yet hardened can be removed with AKEMI® Cleaner A or I, depending on the surface.
- The hardened product is not harmful to health.

Attention in swimming pool operation:

The formation of mildew can be highly reduced by means of disinfecting with chlorine, whereas the water composition in swimming pools should have a free chlorine fraction of 0.3 up to 0.6 mg/liter, in Jacuzzis 0.7 up to 1.0 mg/liter, however, max. up to 1.2 mg/liter. Attention should be paid to a regular, uninterrupted water circulation with constant flooding of the edge of the pool, because otherwise the minimum concentration of chlorine below 0.3 mg/liter may enhance the formation of mildew. This also happens when acidic cleaners are used. Please inform yourself concerning the adjustment of the optimum pH value of the swimming pool water.

Technical Data:

System:	oxime interlaced
Consistency:	past-like, stable
Density DIN 53479-B at 23°C:	approx. 1.02 g/cm ³
Shore A hardness DIN 53505:	approx. 30 - 35
Practical movement absorption:	25%
Working temperature:	+5°C - +40°C
Stable at temperatures from:	-40°C - +150°C
Time to build up skin at 23°C and 50% relative atmospheric humidity:	approx. 10 - 15 minutes
Hardening time at 23°C and 50% relative atmospheric humidity:	approx. 1 - 3 mm per 24 h
Modulus of elasticity:	0.6 N/mm ²
Tensile strength DIN 53504:	150% - 200%

Quantities required:

<u>joint breadth</u>	<u>joint depth</u>	<u>meter per cartridge</u>
5 mm	5 mm	12
10 mm	10 mm	3
15 mm	10 mm	2
20 mm	15 mm	1

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Primer table:	quartz	*2	+			
	sandstone	*1	AP10	copper	*3	+
	limestone	*2	+	brass	*3	+
	marble	*2	+	stainless steel	*6	+
	granite	*2	+	zinc		AP20
	quartzite	*2	+	galvanized steel		+
	concrete	*5	AP10	aluminium	*6	+
	plaster		AP10	eloxadised aluminium		AP20
	brick		AP10	hard PVC		AP30
	fibrated concrete		AP10	polyester		+
	plaster of Paris		AP10	acrylic bathroom fittings		+
	ceramics, glazed/unglazed	*5	+	polyacrylates	*4	+
	glass		+	polycarbonates	*4	+
	untreated wood		+	formic		AP30
	varnished/painted wood	*7	+	ABS		+

- + adheres well
- *1 coat thinly with Primer AP10 twice
- *2 in the event of application in wet/moist rooms or outdoors use Primer AP10
- *3 prepare the surface with a fine sand or emery paper
- *4 the sealing material may cause plastics under surface tension to break; test beforehand!
- *5 in the event of application in underwater areas use Primer AP 70
- *6 in the event of application in underwater areas use Primer AP 20
- *7 test the compatibility of the coating/lacquer with the sealant prior to using the product

Storage: If stored in dry and cool condition (5-25°C/41-77°F) in its closed original container at least 12 months from production.

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 trails of the product, in an inconspicuous area or fabrication of a sample piece.