

Technical Data Sheet

Page 1 of 3

Properties: AKEMI® Marble Silicone 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:

- does not discolour at the edges
- has excellent working and smoothing properties
- has fungicidal properties
- effectively tolerates expansion/contraction up to 20%
- builds a skin within 5 – 10 minutes
- stable at temperatures between –50°C - +150°C
- is extremely weather-resistant
- has a high resistance against abrasion, tearing and notching
- is compatible with paint
- can be supplied in all colours
- colours can be supplied in mat design as well
- can be stored for 12 months under cool and dry conditions
- chlorine-resistant in the disinfectant concentration for swimming pools as well as stress-resistant against mechanical cleaning methods

Application Area: AKEMI® Marble Silicone is a special sealing material for expansion and connecting joint and can be used in combination with natural and artificial stone such as marble, granite, quartzite, sandstone, terrazzo (Venetian mosaic), concrete and the like. In addition this product adheres very well to plaster, ceramic, glass, wood and to many kinds of metal and plastic. AKEMI® Marble Silicone (with the exception of structure-effect and mat-effect colours) is also suited for underwater areas and those exposed to permanent humidity in swimming pools, sauna, steam-baths, 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; natural and artificial stone, ceramic, glass, non-painted wood and metal can be cleaned with Cleaner A; Cleaner I is to be used on plastic and enameled 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 - +35°C.
 6. After application the silicone must be smoothed within 5 – 10 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.
 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.

TDS 05.16

Technical Data Sheet

Page 2 of 3

Special Notes:

- In order to protect the hands use AKEMI® Liquid Glove.
- Mat-design colours must be smoothened dry in order to create the mat surface effect.
- Discolouration occurs if the surfaces beneath are coated with tar or bitumen, the sample applies for 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).
- In order to prevent stains the primer should not come into contact with surfaces in the field of vision.
- Excess smoothing agent must be removed in order to avoid staining.
- The silicone does not adhere or adheres poorly to plastics containing softening agents, to polyethylene (PE), polypropylene (PP) and polytetrafluoroethylene (teflon).
- Sealing materials with fungicide additives are not to be used in the construction of aquariums.
- Hardened sealing can only be removed mechanically. Sealing material which is still soft can be removed with Cleaner A or I – depending on the surface beneath.
- The hardened sealing presents no danger 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 of below 0.3 mg/liter can enhance the formation of mildew. This also happens when using acid cleaners. Please confer concerning the optimum pH-value of the water of swimming pools.

Technical Data:

System:	oxime interlaced
Consistency:	soft, past-like and stable
Density (DIN 53479-B) at 23°C:	approx. 1.02 g/cm ³
Shore A hardness (DIN 53505):	approx. 30-40
Effective tolerance of expansion/ contraction:	20%
Working temperature:	+5°C – + 35°C
Stable at temperatures from:	-50°C – +150°C
Time to build up skin at 23°C and 50% relative atmospheric humidity:	approx. 5 – 10 minutes
Hardening time at 23°C and 50% relative atmospheric humidity:	approx. 1 – 3 mm per 24 hrs
Modulus of elasticity:	0.4 N/mm ²
Tensile strength (DIN 53504):	approx. 250%

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

TDS 05.16

Technical Data Sheet

Page 3 of 3

Primer table:	sandstone	*1	AP10	copper	*3	+
	limestone	*2	+	brass	*3	+
	marble	*2	+	stainless steel	*6	+
	granite	*2	+	zinc		AP20
	quartzite	*2	+	galvanised 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		+
	ceramic, 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: Can be stored for 12 months under cool and dry conditions in the original sealed container.

Health & Safety: Read Material 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.