Technical Instruction Sheet

Characteristics:

AKEMI® construction silicone is a one-component joint sealant on the basis of silicone rubber which hardens in contact with atmospheric moisture. This product has the following particular properties:

- chemically neutral cross-linking
- fungicidal properties
- excellent working and smoothing properties
- effective toleration of movement 25%
- forms a skin within 15 - 20 minutes
- high resistance against abrasion, tearing and notching
- paintable within the meaning of DIN 52452
- available in all colours
- excellent weather resistant and UV-resistant properties
- very good adhesion on a wide variety of materials; for this reason, it is a:
- multi-purpose sealant
- **approved** according to DIN 18545 Part 2 Group E (accords with DIN 18540 Part 1)

Field of Application:

AKEMI® construction silicone is a special sealant which meets the highest requirements in terms of expansion and connecting joints in the construction industry and ancillary trades. It can be used for door and window connecting joints, for sealing purposes in facade work, sanitary installations and the metal construction sector, for the sealing of insulating glass windows and double-glazed windows made of wood, plastic or metal and for gluing and sealing in the air-conditioning/ventilation sectors as well as for general domestic purposes.

Instructions for Use:

1. Contact surfaces must be dry, clean and free of fat and dust. Tiles, ceramic, glass, engineering bricks, concrete and metal can be cleaned with AKEMI® Cleaner A. AKEMI® Cleaner I for plastics and painted/varnished surfaces.
2. Use AKEMI® back-filling cords in order to avoid adhesion on three flanks or in the event of deeper joints; in wet/moist rooms and outdoors use closed-cell PE cords, otherwise open-cell PUR cords. Joint size: 3 mm x 5 mm at the least.
3. Use AKEMI® special adhesive masking tape to cover up the areas near the edges of the joints.
4. In wet/moist rooms, outdoors and for particular surfaces (see Primer table) we recommend the application of AKEMI® primers to the flanks of the joints.
5. Working temperature from +5° C to +40° C.
6. Apply the product and smooth it within 15 - 20 minutes; the best results are achieved using AKEMI® smoothing agent.
7. Before the sealant begins to form a skin, remove the masking tape by pulling it in the direction of the joint.
8. Hardening is dependent on the thickness of the layer, the temperature and the relative atmospheric humidity. It takes approx. 24 hours for 2 mm.
9. Tools can be cleaned with AKEMI® Cleaner A.

Special Hints:

- Use AKEMI® liquid glove in order to protect your hands.
- Keep out of the reach of children. Avoid contact with the eyes and the skin. In the event of contact rinse thoroughly with water and, if necessary, see a doctor. Only use in well-ventilated areas or employ an air extractor. During application/vulcanisation a transient irritant is set free. If this is inhaled in high concentrations over a longer period of time, damage to health cannot be excluded.
- Undersurfaces coated with tar or bitumen cause a discoloration of the sealant. The same applies for elastomers such as EPDM, EPT and neoprene.
- In order to avoid stains, AKEMI® primers should not come into contact with surfaces in the field of vision.
- Remove surplus smoothing agent in order to avoid staining.
- No or limited adhesion to plastics containing plasticizing agents or to PE/PP and Teflon.
- Sealants with fungicide additives are not to be used for sealing aquariums.
- Not suitable for sandstone, natural stone and cast stone (danger of discoloration at the bordering areas). Use AKEMI® marble silicone for this purpose.

In the case of glass rebate sealing of windows and doors, take care that the cleavage product of the cross-linking agent can escape without hindrance; store upright for at least 24 hours before packaging. Otherwise a discoloration of the coating may occur.

- Hardened sealant can only be removed mechanically. Sealant which is still soft can be removed with AKEMI® Cleaner A or I, depending on the undersurface.
- The hardened sealant presents no danger to health.

Safety Measures: see EC Safety Data Sheet

Technical Data:

	transparent	coloured
System:	oxime cross-linking	
consistency:	paste-like, stable	
density DIN 53479-B (at 23° C):	1,03 g/cm³	1,13 g/cm³
Shore A hardness DIN 53505	18	22
effective toleration of movement:	25 %	
working temperature:	+5° C to +40° C	
temperature resistance:	-40° C to +160° C	
time to form a skin (at 23° C/50 % relative atmospheric humidity):	15 minutes	20 minutes
hardening (at 23° C/50% relative atmospheric humidity):	2 mm per 24 hours	
modulus of elasticity at 100 % stress:	0,3 N/mm²	0,4 N/mm²
tensile strength DIN 53504:	1,4 N/mm²	1,2 N/mm²
tear expansion DIN 53504:	ca. 630 %	ca. 470 %
tear growth strength ISO 34 method C:	ca. 3,8 N/mm	ca. 4,0 N/mm

Shelf life: 1 years approx. if stored in cool place free from frost in its tightly closed original container.

Primer table

ceramic, glazed/unglazed		+	copper	3 *	AP 20
glass		+	brass	3 *	+
tiles		+	high-grade steel		+
cast stone		--	zinc		+
natural stone		--	untreated aluminium		+
concrete	+ or	AP 10	eloxadised aluminium		+
brick		AP 10	hard PVC	+ or	AP 30
fibrated concrete		AP 10	soft PVC		AP 30
plaster of Paris	1 *	AP 10	polyester		+
untreated wood		AP 10	acrylic bathroom fittings		+
varnished wood		+	polyacrylates		+
painted wood		+	polycarbonates		+
formic		+			

+ = adheres well
-- = unsuitable

1 * = apply AP 10 twice
2 * = the sealant may cause plastics under surface tension to tear. Test first!
3 * = prepare the surface with a fine sand or emery paper

Notice:

The above information is based on the latest stage of technical progress. It is to be considered as a non-binding hint and does not release the user from a performance test, since application, processing and environmental influences are beyond our realm of control.

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