Technical Data Sheet

Properties:

AKEMI® Ceramic Silicone is a 1-component joint-sealing material based on silicone rubber which hardens in contact with atmospheric moisture.

The product is characterized by the following properties:
- odourless and physiologically harmless after hardening
- rational processing and smoothing properties
- mould-inhibiting properties
- practical movement absorption 25%
- tack-free after a short period of time, fast hardening
- temperature resistant from -40°C to +180°C
- resistant to water stress, UV- and weathering influences
- high resistance to abrasion, tearing and notching
- very low emission (GEV EMICODE® EC1^{PLUS})
- emission class A+ (confirmed by an external testing institute)

Application Area:

AKEMI® Ceramic Silicone is a special joint-sealing material for expansion and connecting joints in kitchens, living and sanitary areas on ceramic tiles, profiled glass, glass blocks and glass elements.

Instructions for Use:

1. Contact surfaces must be dry, clean, free of grease and dust. Cleaning with AKEMI® Cleaner A on natural and artificial stone, tiles, ceramics, glass, non-painted wood and metal; AKEMI® Cleaner I on plastics and painted surfaces.
2. To avoid adhesion on three flanks and in case of deep joints use AKEMI back-filling cords; for humid room applications as well as in outdoor and permanent wet areas use closed-cell PE back-filling cords, otherwise use open-cell PUR back-filling cords. Joint size min. 5 x 3 mm (width x depth).
3. Mask off surfaces in the area of the joint edges with AKEMI® Special Adhesive Tape.
4. Working temperature +5°C up to +40°C (flanks must be dry).
5. Apply product and smoothen within 15 to 20 minutes. Optimal smoothing is achieved with AKEMI® Smoothing Rubber and AKEMI® Smoothing Agent.
6. Remove the masking tape used before the skin is formed in the direction of the joint.
7. Hardening depends on layer thickness, temperature and relative atmospheric humidity and takes approx. 2 mm per 24 hours.
8. Tools can be cleaned with AKEMI® Cleaner A.

Special Notes:
- For professional use only.
- Use afin® Liquid Glove to protect your hands.
- Discolouration occurs on tar or 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 avoid staining, do not apply the primer to visible surfaces.
- Remove excess smoothing agent to avoid staining.
- Not suited for porous, absorbent surfaces like natural and artificial stone; danger of discolouring in the marginal zone!
- Discolouration may occur in contact with non-ferrous metals such as copper or brass.
- No or limited adhesion to plasticised plastics as well as on PE, PP and teflon.

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- Sealing materials with fungicide additives must not be used in the construction of aquariums.
- Hardened sealant can only be removed mechanically, not hardened sealant with AKEMI® Cleaner A, depending on the surfaces.
- The hardened sealant is not dangerous to health.
- Recycling in accordance with the guidelines of EU Decision 97/129 EC on the Packaging Directive 94/62/EC.

Technical Data:

System:	acetate cross-linked
Consistency ISO 7390:	paste-like, stable
Specific weight EN/ISO 1183-1:	1.02 - 1.04 g/cm³
Shore A hardness ISO 868:	approx. 20
Permissible total deformation:	25%
Working temperature:	+ 5°C to + 40°C
Temperature resistance:	-40°C to +180°C
Skin formation time at 23°C, 50% rel. air humidity:	approx. 15 - 20 minutes
Hardening at 23°C, 50% rel. air humidity:	approx. 2 mm per 24 hours
Modulus/elongation stress at 100%:	0.4 N/mm²
Tensile strength:	approx. 1.1 N/mm²
Reaction to fire DIN 4102:	class B2

Consumption:

Joint width	Joint depth	meter per cartridge
5 mm	5 mm	12
10 mm	10 mm	3
15 mm	10 mm	2
20 mm	15 mm	1

Adhesion and compatibility:

AKEMI® Ceramic Silicone has an excellent and durable adhesion on non-porous silicate materials (e.g. glass, glazed ceramics, tiles, clinker, glass ceramics, email, porcelain) and aluminium. On surfaces such as wood, paints, glazes, plastics, melamine or epoxy resin, powder coatings, anodising, stainless steel or sanitary acrylate no general prediction is possible. Therefore, a test of adhesion and compatibility must be carried out before use of AKEMI Ceramic Silicone on these and all other unknown surfaces. Sufficient adhesion cannot be achieved on surfaces with generally adhesion-repellent properties, such as polyolefins (e.g. PE, PP), silicone, PTFE (e.g. Teflon®), butyl rubber, neoprene, EPDM, tar-, bitumen- or wax-containing materials.

Depending on the type and condition of the surface material as well as subsequent loads (tensile and shear forces, exposure to temperature, humidity and other media) adhesion of the sealant to the surface can be improved by using cleaners and primers (e.g. AKEMI® Clean Primer AP 40 for non-porous surfaces, Primer AP 10 for porous or absorbent surfaces.

The permanent compatibility between sealant and adjacent existing materials or materials intended for later contact (e.g. coating systems) or even complete functional units (glazing systems) must be ensured before the sealant is used to avoid discolouration, loss in adhesion, migration effects or other harmful consequences.

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Prolonged contact with materials which release migratory components (e.g. plasticisers, bitumen) must basically be avoided.

AKEMI® Ceramic Silicone releases acetic acid during hardening. Use on or near acid- or corrosion sensitive materials such as iron, copper, brass, zinc, lead, concrete, building materials containing lime or cement is not recommended.

Storage:

If stored in dry and cool condition (5-25°C/41-77°F) in its closed original container at least 24 months from production.

Conformity/tests:

EN 15651-1	F EXT-INT CC class 25 LM
EN 15651-2	G CC class 25 LM
EN 15651-3	S class XS1
EN 15651-4	PW EXT-INT CC class 20 LM
VOC France	emission class A+
GEV EMICODE®	EC1^{PLUS} – very low emission
REACH	compliant with regulation (EU) No. 1907/2006
IVD-leaflet 3-1:	constructive design and sealing of joints in sanitary areas and damp rooms part 1: sealing with sprayable sealants
IVD-leaflet 4:	sealants and mould infestation

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.

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