AKEMI®

Fireproof Silicone

Technical Instruction Sheet

Characteristics: AKEMI® Fireproof Silicone is a single-component, joint sealing material on the basis of silicone rubber which hardens in contact with atmospheric moisture. This product has the following particular properties:

- neutral cross-linked
- - has a high resistance against notching
- flame-resistant
- effectively tolerates expansion/contraction up to 25%
- builds a skin within 15 – 20 minutes
- has excellent working and smoothing properties
- very good adhesion
- stable at temperatures between –40°C - +175°C
- tested and controlled according to DIN 4102-B1 (German industrial standard)
- can be stored for 12 months under cool and dry conditions

Field of Application: AKEMI® Fireproof Silicone is a special sealing material for flame-resistant expansion and connecting joints in the construction sector such as fireproof doors, fire retarding building materials, fire resistant glazing, this means everywhere specific fire protection must be fulfilled.

Instructions for Use:

1. Contact surfaces must be dry and clean and free of fat and dust; tiles, ceramic, glass and metal can be cleaned with AKEMI Cleaner A; AKEMI Cleaner I is to be used on plastic and enamelled surfaces.
2. Back-up-material made of ceramic respectively fibreglass should be inserted in order to prevent adhesion on three flanks and in the event of deeper joints.
3. Areas flanking the joint should be protected with AKEMI® special adhesive masking tape.
4. For information about the good adhesion of different materials please see the primer table.
5. Working temperature +5°C - +40°C (flanks must be dry).
6. After application the silicone must be smoothed within 15 – 20 minutes. The best results are achieved with AKEMI® smoothing agent.
7. Masking tapes must be removed immediately (pull in the direction of the joint) before the skin building begins.
8. The hardening process, which is dependent upon the thickness of the layer, the temperature and the relative atmospheric humidity, takes for 2 mm per 24 hours.
9. Tools can be cleaned with AKEMI® Cleaner A.

Special Hints:

- AKEMI® Fireproof Silicone is tested and controlled in accordance to DIN 4102-B1 and has the approval P-HFM 004137.
- It is only flame resistant between massive, mineral construction materials.
- The fireproof-construction class B1 is reached after complete hardening of the sealant.
- The Fireproof Silicone contains flame-resistant protective materials, which don't release toxic substances when burned.
- In order to protect the hands use AKEMI® liquid glove'.
- 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.
- No suited for sandstones, natural and artificial stones as it could cause discolouration. Use AKEMI Marble Silicone in those cases.
- 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.

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Technical Data:

System:	oxime interlaced
Consistency:	soft, paste-like and stable
Density (DIN 53479-B) at 23°C:	approx. 1.26 g/cm^3
Shore A hardness (DIN 53505):	approx. 28
Effective tolerance of expansion/ contraction:	approx. 25%
Working temperature:	+5°C - +40°C
Stable at temperatures from:	-40°C - +175°C
Time to build up skin at 23°C and 50% relative atmospheric humidity:	15 – 20 minutes
Hardening time at 23°C and 50% relative atmospheric humidity:	approx. 2mm per 24 hours
Modulus of elasticity:	0.56N/mm^2
Tensile strength (DIN 53504):	approx. 1.7 N/mm²
Expansion strength (DIN 53504):	approx. 540%
Colours:	white, grey, black
Storage:	Can be stored for 12 months under cool and dry conditions in the original sealed container.

Primer table:

ceramic glazed/unglazed	+	eloxadised aluminium	AP 20
glass	+	stainless steel	AP 20
tiles	+	copper	AP 20
plaster	AP 10	zinc	AP 20
concrete	AP 10	natural stone	-
blanc aluminium	+	artificial stone	-

+ adheres well
- not applicable

Notice:

These specifications were made in accordance with the up-to-date stage in development and application technology research of our firm. Because the ways and means of application are outside our control the manufacturer cannot be held liable for the contents of this instruction sheet.

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