
Technical Data Sheet

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Properties:

AKEMI® PLATINUM 5.0 P+ adhesives are flowing or knife-grade 2-component products based on unsaturated epoxyacrylate resins dissolved in styrene. The products are characterized by the following properties:

- wide field of application due to different consistencies
- extraordinary light, transparent color
- fast hardening (15 – 30 minutes)
- excellent surface drying
- excellently polishable
- improved protection against yellowing
- improved adhesion and bonding strength, also on Techno Ceramics
- very good adhesion on natural stones, also at higher temperatures (60 – 70°C; in case of low exposure to strain: 100 – 110°C)
- resistant to water, petrol and mineral oils

Application Area:

AKEMI® PLATINUM 5.0 P+ adhesives are mainly used in stone processing industry for bonding natural stones, quartz, ceramics and large-size Techno Ceramic (e.g. Dekton®, Lapitec®, Neolith®, Laminam®, Kerlite®, Maxfine), reinforcement of natural stone slabs with glass fiber products (laminating) and forming of rock substitutes with crushed rocks and sand.

Special properties:

PLATINUM 5.0 P+ clear flowing: moderately viscous consistency

PLATINUM 5.0 P+ clear knife-grade: knife-grade consistency for vertical applications

Instructions for Use:

1. The surface to be treated must be clean, completely dry and roughened.
2. Coloring is possible by adding AKEMI® Polyester Coloring Pastes or Coloring Concentrates up to max. 5 %, and also by adding AKEMI® Spectrum Pastes. PLATINUM P+ clear knife-grade can be diluted in any ratio by adding PLATINUM P+ clear flowing.
3. Add 1 to 3 g of white hardener paste to 100 g of adhesive (4 to 5 cm of paste pressed out of the screw tube correspond to 1 g).
4. Mix both components thoroughly. The mixture can be applied for about 3 to 11 minutes (20°C), depending on the product and the quantity of hardener added.
5. After 15 to 30 minutes the treated parts can be further processed (grinding, milling, drilling).
6. The hardening process is accelerated by heat and delayed by cold.
7. Tools can be cleaned with AKEMI® Nitro Thinner.

Special Notes:

- Use AKEMI® Liquid Glove to protect your hands.
- Hardener portions exceeding 3 % reduce adhesion and deteriorate surface drying.
- Hardener portions higher than 2 % cause a striking yellowness in the hardened product.
- Hardener portions less than 1 % and low temperatures (below 5 °C) considerably delay hardening.
- We suggest a hardener portion of 1 % for best results in color lightness.
- An adhesive which is already thickened or just gelling should not be used anymore.

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- The bonding layers should be as thin as possible (< 1 mm) due to shrinkage (approx. 5 - 8 %) caused by the high reactivity of the filler and development of heat during the hardening process.
- Bondings frequently exposed to humidity and frost are non-durable.
- The hardened adhesive has a low tendency to yellowing.
- Once hardened, the adhesive can no longer be removed by solvents. Removal is only possible mechanically or by higher temperatures (> 200°C).

Technical Data:

	<u>clear flowing</u>	<u>clear knife-grade</u>
Color:	transparent clear	transparent opaque
Density:	approx. 1.07 g/cm ³	approx. 1.10 g/cm ³
Working time / min		
a) at 20 °C		
1 % hardener	9 – 11 min	9 – 11 min
2 % hardener	6 – 8 min	6 – 8 min
3 % hardener	3 – 5 min	3 – 5 min
b) with 2 % hardener		
at 10 °C	9 – 11 min	9 – 11 min
at 20 °C	6 – 8 min	6 – 8 min
at 30 °C	2 – 4 min	2 – 4 min
Tensile strength DIN EN ISO 527:		35 – 40 N/mm ²
Bending strength DIN EN ISO 178:		70 – 85 N/mm ²
Compression Strength DIN EN ISO 604:		65 – 75 N/mm ²

Storage:

If stored under dry and cool conditions (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 trials of the product, in an inconspicuous area or fabrication of a sample piece.