

TECHNICAL DATA SHEET (TDS)

CRYSTAL GEL Water-Clear Stone Gel

1. CHARACTERISTICS

CRYSTAL GEL is a two-component, water-clear polyester-based gel formulated with unsaturated polyester resin dissolved in styrene and selected mineral fillers. It is designed for bonding, filling and repairing natural and artificial stone.

2. FIELD OF APPLICATION

CRYSTAL GEL is mainly intended for the stone processing and fabrication industry for bonding natural and artificial stones. Its creamy-soft consistency makes it particularly suitable for filling larger areas, cavities and vertical surfaces.

3. INSTRUCTIONS FOR USE

- Ensure that the surface is clean, dry, sound and lightly abraded before application.
- For colour matching, suitable polyester colour pastes may be added up to a maximum of 5%.
- Suitable transparent polyester liquid may be added for viscosity adjustment, as required.
- Add 1–4 g of liquid hardener to 100 g of CRYSTAL GEL.
- Mix both components thoroughly until a uniform and homogeneous mixture is obtained.
- The mixed material should be applied within its working time.
- Treated parts can generally be further processed after approximately 24 hours.
- Curing is accelerated by higher temperatures and delayed by lower temperatures.
- Clean tools immediately after use with a suitable cleaner before the material hardens.

4. SPECIAL HINTS

- Wear suitable protective gloves during handling and application.
- Hardener dosage above 4% may reduce adhesion and adversely affect surface drying.
- Hardener dosage below 1%, particularly at temperatures below 5°C, can significantly delay curing.
- Keep bonding layers as thin as practically possible, preferably below 2 mm, because curing may cause approximately 2–8% shrinkage.

- When filling large holes or forming corners and edges, use the minimum practical amount of hardener.
- Bonding exposed frequently to moisture, humidity or frost may have limited long-term durability.
- Slight yellowing may occur during prolonged outdoor exposure.
- Adhesion may be moderate on fresh, alkaline building materials such as fresh concrete, concrete bricks and similar substrates.
- Once fully hardened, the material cannot normally be removed using conventional solvents. Removal is primarily mechanical or by high-temperature treatment above approximately 200°C.
- When properly handled and processed, the cured material is generally not considered harmful under normal intended use.

5. TECHNICAL INFORMATION

DENSITY

CRYSTAL GEL : 1.12–1.18 g/cc

WORKING TIME AT 20°C

1% Hardener	: 13–15 min
2% Hardener	: 10–12 min
3% Hardener	: 8–10 min
4% Hardener	: 7–9 min

6. MECHANICAL PROPERTIES

Tensile Strength	: 55–65 N/mm ²
Bending Strength	: 75–85 N/mm ²

7. SHELF LIFE

Approximately 1 year when stored in the original, tightly closed container under suitable storage conditions and protected from frost.

8. IMPORTANT NOTE

The technical values stated above are typical laboratory values and are provided for guidance. Actual performance may vary depending on substrate condition, temperature, humidity, mixing ratio, application method and workmanship. A preliminary compatibility test is recommended before large-scale application.

Manufactured For & Marketed By:

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