

CHEMFIT SILICONE AC

One Part Acetoxy Moisture Curing Silicone Sealant – For Glazing and Weatherproofing on Non-Porous Substrates: Glass & Glazed Ceramic Tiles

PRODUCT DESCRIPTION

ChemFit Silicone AC is a one part, acetoxy cure, moisture curing silicone sealant designed for general purpose glazing and weatherproofing applications. This high-performance sealant cures upon exposure to atmospheric moisture to form a durable, permanently flexible, waterproof, and weather-resistant rubber seal. It exhibits excellent adhesion to a wide range of non-porous construction materials without the need for a primer.

PRIMARY APPLICATIONS

ChemFit Silicone AC is recommended for use in conditions such as:

- **Glazing & Weatherproofing:** Sealing and weatherproofing glass, glazed ceramic tiles, aluminum window and door frames, and metal constructions.
- **General Sealing:** Suitable for sealing on various non-porous substrates including painted surfaces, acrylic/polycarbonate sheets, mirrors, zinc, and stainless steel.
- **Interior & Exterior Use:** Highly resistant to UV radiation, weathering, and extreme temperatures, making it suitable for both indoor and outdoor applications.

KEY FEATURES AND BENEFITS

- **One Part, Ready-to-Use:** No mixing required; easy to apply with a standard caulking gun.
- **Acetoxy Cure System:** Fast curing upon exposure to air moisture.
- **Permanently Flexible:** Accommodates joint movement without cracking.
- **Excellent Adhesion:** Bonds strongly to a wide variety of non-porous substrates without a primer.
- **Weatherproof & UV Resistant:** Will not degrade under UV exposure or extreme weather conditions.
- **Waterproof:** Provides a durable, watertight seal.
- **Wide Service Temperature:** Remains flexible from -40°C to +100°C.

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Basis	One-part, acetoxy silicone
Color	White, Grey, Black, Clear (subject to availability)
Specific Gravity	~0.99 kg/litre
Consistency	Non-sag paste
Skin Formation Time (at +23°C/50% r.h.)	~10 – 15 minutes
Curing Rate (at +23°C/50% r.h.)	~2 – 3 mm per 24 hours
Movement Capability	±25%
Shore A Hardness	22 – 30 (after 28 days)
Tensile Strength	~2.0 N/mm ²
Elongation at Break	> 300%
Service Temperature	-40°C to +150°C
Application Temperature	+5°C to +40°C

PACKAGING AND STORAGE

Packaging:

- 300 mL cartridge

Storage:

- Store in original unopened packaging in a cool, dry environment between +10°C and +25°C.
- Protect from direct sunlight and frost.

Shelf life: 12 months from date of manufacture when stored properly.

DOSAGE AND COVERAGE RATES

For a 300 mL cartridge :

Joint Width (W)	Joint Depth (D)	Approx. Joint Length per Cartridge
6 mm	4 mm	~12.5 meters
9 mm	5 mm	~6.5 meters
12 mm	6 mm	~4.0 meters

Joint Design: For optimal performance, the joint width should be designed with a width-to-depth ratio of approximately 2:1 (e.g., 12 mm wide and 6 mm deep).

APPLICATION GUIDELINES

Surface Preparation:

- Substrates must be sound, clean, dry, and free from dust, oil, grease, loose particles, and any contaminants.
- Use masking tape to protect adjacent surfaces for a clean finish.

Priming:

- Priming is generally not required for non-porous substrates like glass and glazed ceramics.

Application:

- Cut the cartridge nozzle at a 45° angle to the desired bead size.
- Apply the sealant firmly into the joint, ensuring complete contact with the joint faces.
- Tool the sealant immediately after application with a spatula (moistened with soapy water to prevent sticking).

Curing:

- Skin formation occurs in approximately 10-15 minutes.
- The sealant is rain-resistant after skin formation.
- Full cure occurs at a rate of approximately 2-3 mm per 24 hours.

Cleaning:

- Remove masking tape immediately after tooling.
- Clean tools and uncured residue with mineral spirits or a suitable solvent (do not use water).
- Cured silicone must be removed mechanically.

Limitations & Constraints:

- **DO NOT USE** on natural stone (limestone, marble), concrete, cementitious mortar, or substrates that are porous or contain moisture.
- **DO NOT USE** on copper, brass, or other materials that may react with acetic acid during the curing phase.
- **DO NOT USE** in structural glazing or fully immersed applications.

HEALTH AND SAFETY

During curing, this product releases a small amount of acetic acid (vinegar-like odor). Use in a well-ventilated area. May cause eye and skin irritation. If eye contact occurs, rinse with water for 15 minutes and seek medical attention. Use gloves and safety glasses. Refer to the Safety Data Sheet (SDS) for detailed information.

CLEANING OF TOOLS

Clean tools and equipment with mineral spirits or a suitable silicone cleaner immediately after use.

APPROVALS AND STANDARDS

ChemFit AcrylSeal 2000 complies to the following standards:

- **ISO 11600** – Class F-25E (for non-structural glazing joints)
- **ASTM C920** – Grade NS, Type S
- **ISO 9001** – Quality management system certified

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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