



Tosseal™ 381

One Part Neutral Cure Silicone Sealant

Product Description

TOSSEAL 381 is a one component silicone sealant which cures to a high modulus silicone rubber on exposure to atmospheric moisture at room temperature. This product is a ketoxime cure sealant which does not emit the odors associated with acetoxy cure sealant, and is virtually non-corrosive to metal. In addition to the unique features of silicone rubber such as superior high and low temperature resistance, water resistance, and outstanding weatherability, TOSSEAL 381 also provides excellent adhesion to glass, metal, concrete and numerous construction materials. This product is highly suitable for application in glass-to-glass or glass-to-aluminum sash bonding and use on prefabricated housing. TOSSEAL 381 satisfies JIS A 5758 code regulation (F.G-30SLM), a test of durability of construction sealing materials under extreme performance requirements.

Key Features and Typical Benefits

- One component, ready-to-use sealant
- Room temperature cure
- Neutral cure (ketoxime cure)
- No acetoxy odor during cure
- Easy gunnability over a wide temperature range
- Maintains good flexibility
- Excellent adhesion to many materials

Potential Applications

- Sealant for glass-to-glass and glass-to-metal sashing
- Sealant for pre-fabricated housing, freight containers, cold storage rooms interior sealing in building and housing

Typical Uncured Properties

Test Method: JIS A 1439

		TOSSEAL 381
Consistency		Paste
Specific Gravity	(23 °C)	1.02
Extrudability	(5 °C) sec	5
Tack-Free Time	(23 °C) min	10
Slump	mm	0

Typical Cured Properties

Test Method: JIS A 1439

		TOSSEAL 381
50% Modulus	MPa {kgfcm ² }	0.46 {4.7}
Max Tensile Strength	MPa {kgfcm ² }	0.83 {8.5}
Elongation	%	170

TEST CONDITIONS	Substrate	: H-shaped, anodized aluminum
	Primer	: TOSPRIME D
	Cure time	: 14 days at 23 °C/50% relative humidity : 14 days at 30 °C/50% relative humidity



Application Instructions

- **SURFACE PREPARATION**

Substrate surface should be thoroughly cleaned with a suitable solvent such as alcohol, xylene, or methyl ethyl ketone (MEK). Do not use soap, detergent or water. Wipe the surface dry. Sealant will not properly adhere to a wet substrate.

- **MASKING**

To obtain a neat sealant line, use masking tape to cover areas adjacent to any joints before priming.

- **PRIMER**

A preliminary adhesion test of sealant on the substrate is recommended to ascertain proper adhesion. For difficult-to-bond substrates, use of a primer (TOSPRIME C, D or E) is suggested. Please refer to the chart on page 3 for proper primer selection. Allow primer to dry thoroughly before proceeding.

- **BACK-UP MATERIAL**

Do not apply sealant in direct contact with organic rubber such as chloroprene or EPT etc. Rubber closed to into back-up materials may stain the silicone sealant.

- **APPLYING AND TOOLING SEALANT**

Cut nozzle to desired bead size, break the membrane film completely and extrude sealant in the joint. Tool immediately, within 5 minutes of application, with a spatula to spread the sealant against the back-up material and joint surfaces. Remove masking tape immediately after tooling. Sealant will begin to skin on the exposed surface in about 10 minutes and cure will progress inward.

Handling and Safety

- Wear eye protection when handling uncured sealant as it can irritate eyes. In case of eye contact, immediately flush eyes well with water and contact a physician.
- This product releases methyl ethyl ketoxime vapors as a by-product of cure. Adequate ventilation must be maintained in the work place at all times.
- Extended contact with the skin may cause irritation and should be avoided.
- Not for food contact use.

Storage

- Store in a cool, dry, dark place.
- Keep out of reach of children.



Packaging

- 310ml cartridge available in cases of 50 (5 boxes of 10 cartridges)
- 18kg pail
- 200kg drum

Colors

- Available in 7 colors (Color Suffix)

Clear(C)

White(W)

Gray(G)

Black(B)

Dark brown(A5)

Light gray(G2)

Aluminum gray(S)

Primer Selection

TOSSEAL primers; TOSPRIME C, D and E have been specially prepared to ensure the durability and bonding strength of TOSSEAL 381 to various substrates. The chart below shows which primer is most compatible with the substrate.

PRIMER	SUBSTRATE
TOSPRIME C	Mortar, Masonry
TOSPRIME D	Glass, Metal, Ceramic
TOSPRIME E	Painted metal, Painted surfaces

Caution: Primers contain solvents which are highly flammable and toxic. Observe all cautions. Storage, mixing and use must be done in a well ventilated area away from any source of ignition such as heat, sparks, and flame.

Do not use on marble without primer because of migration. TOSPRIME C is recommended.

Limitations

Customers must evaluate MPM products and make their own determination as to fitness of use in their particular applications.

Patent Status

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