



TBP Converting, Inc.
3M 550 Adhesive Sealant
PDS



3M™ Polyurethane Adhesive Sealant 550 Fast Cure with 3M™ Polyurethane Adhesive Sealant Accelerator AC61

Technical Data

December, 2014

Product Description 3M™ Polyurethane Adhesive Sealant 550 Fast Cure (550FC) when mixed with 3M™ Polyurethane Adhesive Sealant Accelerator AC61 provides for a faster cure. It is a high performance two-component, moisture and chemical curing, polyurethane sealant ideally suited for a number of construction applications.

- Features/Advantages**
- Vertical and horizontal expansion joint applications
 - Concrete and Masonry control joints
 - Precast and tilt-up construction joints
 - Aluminum curtain wall and storefronts
 - Door and window frame perimeters
 - Faster, more consistent cure rate
 - Tack-free in 15 +/- 5 minutes
 - High joint movement capability
 - No priming required for most applications
 - Excellent weather resistance
 - Non-staining
 - Convenient automated static mixing
 - Low VOC – 35.1 g/L
 - Paintable (water-based) after Tack-free

**Physical Properties
of 550FC + AC61
mixed**

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Properties are tested with mixed 550FC and AC61 at a 10:1 ratio by volume.

| | |
|---|--|
| Appearance | Smooth Paste |
| Color | Accelerator: White 550FC Sealant Color: White, Black, or Gray Mixed at 10:1 ratio: Same as 550FC color |
| Skin Formation | 15 ± 5 minutes (ASTM C679) |
| Tensile Strength in 1 hour | >70 psi (ASTM D412) |
| Tensile Strength after 24 hr cure | 300 psi (ASTM D412) |
| Shore A Hardness (ISO 868 - 3) | 40 – 45 (ASTM C661) |
| Modulus at 100% Elongation | 1.0 MPa (150 psi) (ASTM D412) |
| Elongation at Break | > 250% (ASTM D412) |
| Temperature Resistance | -22°F to 176°F (-30°C to +80°C) |
| Ratio Mix: Sealant 550FC to Accelerator AC61 | 10:1 (volume measurements) |
| Weather Resistance | Excellent |

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Product

Certifications

- **Federal Railroad Administration**
 - Surface Flame Spread ASTM E162
 - Smoke Generation ASTM E662
- **Bombardier SP800-C Toxic Gas Production**
- **M-7 Technical Specification Boeing BSS 7239**
- **Leadership In Energy and Environmental Design (LEED)**
 - Helps contribute to LEED® credits

Application

All surfaces to be sealed or bonded must be dry and clean from dust, oil, grease, water/condensation, frost, and any other contaminants that may affect the adhesion of the sealant. If grease or oil are present on non-porous substrates, wiping with a solvent such as xylene or methyl ethyl ketone* (MEK) and a clean rag is suggested.

Bond breaker tape or closed cell backer rod should be used to control sealant depth and prevent three-sided adhesion.

For most applications, high strength bonds can be achieved without the use of a primer. Pre-testing for adhesion is suggested to determine if a primer is needed. Contact your 3M Technical Service representative for primer recommendations and application advice.

Loading the 400A-2K pneumatic applicator gun: Make a ½” slit close to the end of the sausage pack. Load sausages into the gun with the cut end out. Place the manifold and static mixing tip at the end of the gun and secure properly in place. Gun the mixed material onto a piece of scrap paper for approximately 4 seconds (about 10 g) to ensure proper mixing of the sealant. Next, place mixed sealant into the joint to the appropriate depth. Dry tool the sealant immediately after application to ensure a proper bond to the substrate and the desired finish. If mixed material sits static in the mixing tip, replace the mixing tip. Dispose of the scrap material properly follow local jurisdiction requirements.

3M™ Polyurethane Adhesive Sealant 550 Fast Cure / 3M™ Polyurethane Adhesive Sealant Accelerator AC61 is mixed at a 10:1 ratio using a handheld pneumatic applicator. A 350 mL sealant pack is used with a 45 mL accelerator pack. The two components are mixed through a disposable manifold and static mixing head. Once opened, mixed sealant with accelerator begins to cure in the mixing nozzle for more than 2½ minutes without dispensing, and a new mixing nozzle must be used.

Cured sealant must be mechanically removed from the surface.

***Note:** When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer’s precautions and directions for use.

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Pneumatic Handheld Equipment

3M™ Two-Component Adhesive Sealant Applicator 400A-2K is suggested for smaller production using 3M™ Polyurethane Adhesive Sealant 550 Fast Cure / 3M™ Polyurethane Adhesive Sealant Accelerator AC61. The applicator uses a 350 mL pack of sealant with a pack of accelerator applied using supply air pressure of 98 psi to 145 psi. Components are combined in a disposable manifold and mixing takes place in a disposable static mixing nozzle just prior to dispensing. Rate of output can be varied by adjusting the internal pressure regulator control knob.



Storage

Polyurethane sealants must be stored in a controlled environment in unopened original containers below 77°F (25°C) to maximize shelf life.

Shelf Life

When stored at recommended conditions, the shelf life of sausage packs is 12 months from the date of manufacture.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651)-737-6501.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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ISO 9001

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.



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