



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

Technical Data

April, 2013

Product Description 3M™ Polyurethane Adhesive Sealant 550 Fast Cure (550FC) can be mixed with 3M™ Polyurethane Adhesive Sealant Accelerator AC61 for faster curing. Mixing is typically done in line with special two component dispensing equipment.

Features/Advantages

- Speeds production
- Faster, more consistent cure rate
- Ensures curing between two non-porous substrates
- Not dependent on moisture for curing
- Stays flexible
- Acts as adhesive and sealant

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

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Application

All surfaces to be bonded must be clean from dust, oil, grease and any other contaminants that could interfere with bonding. If grease or oil are present wiping with a solvent such as methyl ethyl ketone* (MEK) is suggested. The 3M™ Polyurethane Adhesive Sealant 550 Fast Cure / 3M™ Polyurethane Adhesive Sealant Accelerator AC61 may be dispensed through two different applicators.

For large production runs, 3M™ Polyurethane Adhesive Sealant 550 Fast Cure / 3M™ Polyurethane Adhesive Sealant Accelerator AC61 is mixed at a 10:1 ratio using special 2 part pumping/mixing equipment. The equipment is available from various equipment suppliers that dispense the sealant and accelerator from 5 or 55 gallon drums. Once opened, the 550FC sealant needs to be protected from air to prevent curing. The pumping equipment will provide some protection from the air and moisture, but production should be scheduled so the drum is used up as soon as possible. The pumping equipment must be a closed loop system comprised of hardware and hose that are moisture-proof.

For smaller production runs, 3M™ Polyurethane Adhesive Sealant 550 Fast Cure / 3M™ Polyurethane Adhesive Sealant Accelerator AC61 is mixed at an 8:1 ratio using a handheld pneumatic applicator. A 350 mL sealant pack is used with an accelerator pack. The two components are mixed through a disposable manifold and static mixing head. Once opened, adhesive sealant with accelerator will begin to cure in mixing nozzle for more than 2½ minutes without dispensing, and a new nozzle must be used.

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

2K Production Equipment

There are equipment companies that can help design the right equipment for a bulk two part system. One company suggested for helping design the correct equipment is Graco.

Graco manufactures two component proportioning/dispensing units that can handle a 55 gallon drum of 550FC and a 5 gallon pail of AC61. Typical equipment will be a 50:1 piston pump with a double ram post for the sealant and a 5:1 piston pump with a single post for the 5 gallon pail of accelerator. Mixing takes place in a disposable mixing nozzle just prior to dispensing. Exact equipment configuration will vary and depends on factors such as rate of output, length and size of hoses, bead size desired, and container sizes.

Graco Contact info:

Website - <http://www.graco.com>

For a Graco Distributor in your area contact:

1-877-844-7226

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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

For bulk containers, 5 gal and 55 gal, store unopened containers under 77°F (25°C) to maximize shelf life.

Shelf Life

When stored at recommended conditions, the shelf life of cartridges and sausage packs is 12 months from the date of manufacture. For 5 and 55 gallon containers, the shelf life is 6 months from date of manufacture.

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.



Industrial Adhesives and Tapes Division

3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550 • 877-369-2923 (Fax)
www.3M.com/sealants



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