



# Single Component, Polyurethane Sealant

## 540

Technical Data

May, 2012

### Product Description

3M™ Polyurethane Sealant 540 is a high performance, single component, moisture curing, polyurethane sealant ideally suited for a number of construction applications.

### Used to Seal

- Vertical and horizontal expansion joints
- Concrete control joints
- Precast and tilt-up construction
- Masonry expansion joints
- Aluminum curtain walls and storefronts
- Doors and windows
- Submerged applications

### Advantages

- Faster curing than most competitive products
- Tack-free in 60 minutes per ASTM C679
- Joint movement capability  $\pm 25\%$
- No priming required for most applications
- Excellent weather resistance
- Non-staining
- No mixing required
- Low VOC – 35.1 g/l
- Paintable after Tack-free
- Low modulus/Low shore A hardness

### Colors

Available in White, Tan, Bronze, Gray and Black. Additional colors are available for larger orders.



\*Colors are for reference only, not intended for color matching.

### Packaging

Available in 10.5 fl. oz. (310 mL) aluminum cartridges and 20 fl. oz. (600 mL) sausage packs (in gray, black and white only).

### Certifications

- ASTM C920, Type S, Grade NS, Class 25, Use NT, G, M, and A
- Contributes to LEED credit
- ASTM E162 Surface Flame Spread
- ASTM E662 Smoke Generation

# 3M™ Single Component, Polyurethane Sealant 540

## Technical Data

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Properties	Results	Test Method (if applicable)
Tack-Free Time (73°F & 50%RH)	60 minutes	ASTM C679
Curing Rate	1/8" per 24 hours	
Shore A Hardness	40	ASTM C661
Effect of Heat Aging	None	
Stain & Color Change	None	ASTM C510
Adhesion to Concrete	27 lbf, No adhesion loss	ASTM C794
Effects of Accelerated Weathering	No cracking	ASTM C793
Elongation to break	>600%	
Service Temperature	-40°F - 194°F (-40°C - 90°C)	
Extrusion Rate	55 mL/min	ASTM C1183
Shelf Life	6 months after shipment	
Weather Resistance	Excellent	
Compatibility with paints	Water based	

## Directions for Use

### Surface Preparation:

Surfaces to be sealed or bonded should be clean and dry. Surfaces should be free from grease, mold release, oil, water/condensation, frost, and other contaminants that may affect the adhesion of the sealant.

**3M™ Bond Breaker Tape** or backer rod should be used to control sealant depth.

### Primer:

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 recommendation and application advice.

### Application:

Loading the applicator gun: make sure the applicator is set up with correct plunger attachment for cartridge or sausage pack.

**Cartridge:** Puncture seal in nozzle and remove the pull-tab seal at the bottom of the cartridge. Load into applicator and fix retaining ring (if applicable). Assemble the nozzle (if applicable) and cut to desired size and shape.

**Sausage Pack:** Make a 1" slit close to the crimp on one end of the sausage pack. Load the sausage pack into the applicator barrel (slit side out). Place the rounded end of the supplied sausage nozzle onto the slit end of the sausage package and fix with retaining ring. Cut nozzle to desired size and shape. Product should be used within 24 hours after seal is punctured. Dispense product with the nozzle tip in contact with the substrate to insure good gap filling. Bonding must occur within the first 50% of published skin time

Do not apply polyurethane sealants and adhesive sealants on frozen nor wet surfaces. Do not apply over silicone nor in the presence of curing silicone nor hybrid products. Avoid contact with alcohol and solvents during curing. Sealant can be tooled immediately after applying to give desired appearance.

**Cleanup:** While sealant is still soft, cleaning can be done with the same solvents used for surface preparation. Avoid cleaning with alcohol as it will interfere with the curing process. If sealant is already cured, removal is done mechanically with razor knife, piano wire, sanding or 3M™ Scotch-Brite™ Molding Adhesive and Stripe Removal Disc. This disc is available from 3M Automotive Aftermarket Division.

# 3M™ Single Component, Polyurethane Sealant 540

---

<b>Storage</b>	Polyurethane sealants and adhesive sealants must be stored in a controlled environment to maximize shelf life. Store the products in the original unopened containers below 77°F (25C).
<b>Shelf Life</b>	When stored at recommended conditions, the shelf life is 6 months after shipment from 3M.
<b>Precautionary Information</b>	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.
<b>Technical Information</b>	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.
<b>Product Use</b>	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.
<b>Warranty, Limited Remedy, and Disclaimer</b>	Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.
<b>Limitation of Liability</b>	Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

---

**ISO 9001:2008**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2008 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/industrial



*Recycled Paper*  
40% pre-consumer  
10% post-consumer

3M and Scotch-Brite are trademarks  
of 3M Company.  
Printed in U.S.A.  
©3M 2012 (5/12)