

3M™ Wind Polyurethane Sealant W2640 Gray (RAL 7035)

Product Description

3M™ Wind Polyurethane Sealant W2640 is a one component, moisture curing product that forms permanent elastic bonds. It creates a high strength bond in composites and various materials such as plastic, metal and wood. 3M Wind Polyurethane Sealant W2640 is a durable highly elastic elastomer suitable for Wind Energy applications.

Features

- One component /cures with moisture
- Fast curing
- High tensile strength
- Bonds dissimilar materials
- Adheres to a wide variety of materials
- Permanently elastic
- Paintable after cure

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

Read and follow the precautions on label and MSDS before using product.

Typical Physical Properties

Properties	Typical Values
Tack-Free Time @ 73°F and 50% Relative Humidity/Skin Time	60 minutes
Rate of Cure @ 73°F and 50% Relative Humidity	1/8" (3 mm) per 24 hour
Shore A Hardness (ASTM C661)	40
Tensile Strength (ASTM D412)	300 psi (2.1 MPa)
Elongation at Break (ASTM D412)	>600%
100% Modulus (ASTM D412)	58 psi (0.4 MPa)
Service Temperature	-40°F–194°F (-40°C–90°C)
Specific Gravity	1.17
Application Temperature	40°F–95°F (5°C–35°C)
Color	Gray (RAL 7035)
Tg (ASTM E1356)	-80°F (-62°C)
Volume Shrinkage (ASTM C1241)	3.3%
Tear Propagation (ASTM D624)	1105 kg/m
Volume Resistivity (ASTM D257)	1.42 x 10 ¹⁰ Ohm-cm

Heat Resistance

Long term exposure to temperatures greater than 194°F (90°C) will decrease tensile strength over time. It is not recommended to use these products in applications where the temperatures will continuously exceed 194°F (90°C).

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, and other contaminants that may affect the adhesion of the sealant. Abrading with 180 to 220 grit abrasive followed by a solvent wipe will improve the bond strength. Strictly follow all respective solvent manufacturer warnings and directions for use.

Note: Alcohol will interfere with the curing process and extra care must be taken when using alcohol as a cleaning solvent to prevent any contact with the sealant.

Application

Loading the applicator gun: Make sure the applicator is set up with correct plunger attachment for cartridge or sausage pack (a variety of 3M™ Applicator Guns are available, please contact your 3M Representative).

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 inch 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. 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. Product should be used within 24 hours after seal is punctured.

Note: Do not apply polyurethane sealants and adhesive sealants to frozen or wet surfaces. Do not apply over silicone or in the presence of curing silicone or 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 performed mechanically with 3M™ Scotch-Brite™ Molding Adhesive and Stripe Removal Disc or razor knife, piano wire, or sanding.

3M™ Applicators

3M also offers a wide range of applicator guns - both powered and manual-designed to handle the most common cartridge and sausage pack sizes. Your 3M representative can help you select the right guns for your products and applications.

	310	400M	600M	600A	34A	643B
Power Source	Manual	Manual	Manual	Pneumatic	Pneumatic	Battery-Operated
310 ml Cartridges	•	•	•		•	•
600 ml Sausage Packs			•	•		•

Please note, 400 ml sausage packs and bulk product available on request.

Storage

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 (25°C).

Shelf Life

When stored at recommended conditions, the shelf life is 1 year from date of manufacture.

For more information on our wind energy product line, contact 3M Renewable Energy at 800-755-2654 or visit us at www.3M.com/wind.

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.

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