

3M

Edge Sealer

ES2000

Technical Data

October, 2002

Product Description 3M™ Edge Sealer ES2000 is a two-part, urethane sealer. It is a clear, non-yellowing, durable sealer system having excellent resistance to environmental exposure. It is supplied in 50 ml dual syringe plastic Duo-Pak cartridges with a 1:1 mix ratio as part of the 3M™ Applicator System.

Typical Physical Properties and Performance Characteristics

Notes: 1) The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Metric values are listed in parenthesis.
2) ASTM = American Society for Testing and Materials.

PROPERTY	TEST METHOD	TYPICAL VALUE
Color	Visual	Clear
Viscosity Part A* Part B**	ASTM D2196	30,000 - 40,000 cps 1,000 - 5,000 cps
Solids Content		100%
Shore Hardness C After 24 hrs After 48 hrs	ASTM D2240	64 68
Tack Free Time	ASTM 5895	25 minutes
Yellowness Index	ASTM E313	0.3
Yellowness Index after exposure to 1000 hrs according to ASTM G-155 Cycle 1	ASTM E313	2.3

*Brookfield RVF, No. 3 Spindle @ 1 RPM @ 25°C.

**Brookfield RVF, No. 3 Spindle @ 10 RPM @ 25°C.

General Information

- Edge Sealer ES2000 has excellent environmental resistance properties and has been used to protect exposed edges from environmental damage.
- Edge Sealer ES2000 adheres to a variety of substrates including paints, primers and films.
- Edge Sealer ES2000 cures to provide a clear, non-yellowing, high gloss finish at ambient conditions.
- Edge Sealer ES2000 has been used to provide protection for exposed edges on aircraft, wind generators and ships.
- Edge Sealer ES2000 is a Polyol/Polyisocyanate system of 100% solids.
- Edge Sealer ES2000 is supplied in convenient 50 ml Duo-Pak Cartridges for easy application of large or small amounts with minimal waste.

Storage

Store products at 60-80°F (16-27°C) for maximum storage life. Rotate stock on a “first-in first-out” basis.

Shelf Life

When stored in the original, unopened container at the storage conditions suggested, these products have a shelf life of 12 months from date of shipment.

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Directions for Use

Surface Preparation:

For best adhesion, oxide films, oils, dust, mold release agents and all other surface contaminants must be completely removed.

Dispensing:

3M™ Edge Sealer ES2000 is packaged in Duo-Pak cartridges as part of the 3M™ Scotch-Weld™ EPX™ Applicator System. Follow the applicator instructions for assembly, cartridge loading and dispensing the sealer. Make sure you select the correct Applicator Plunger for the selected sealer. After loading the Duo-Pak cartridge into the EPX applicator, remove the cartridge cap and apply the nozzle to the cartridge. To ensure adequate mixing and to minimize air entrapment in the nozzle, point the nozzle end of the loaded Duo-Pak cartridge in a vertical upward position and slowly expel sealant from the cartridge into the nozzle. Once sealant has reached the tip of the nozzle, expel sealant until no air bubbles are present. Apply sealant to the desired surface/edge using desired position. Properly applied sealant should be transparent with minimal air entrapment. Once Part A and Part B of the sealant materials come in contact with each other, the sealant begins to cure. Depending on the time and temperature, the sealant can set up within the nozzle if it is not dispensed within the working time of the sealant. If after a long idle time, the sealant will not flow, remove and replace the mixing nozzle. For idle times less than the set up time of the sealant, a good practice is to leave the mixing nozzle on the tube until the next time it is used. This will prevent cross contamination of Parts A and B.

Hand Mixing:

Hand mixing is not recommended.

Clean-up:

Excess uncured sealant can be removed by wiping with solvent and should be allowed to cure before disposal. Unmixed sealant should be handled and stored per the MSDS recommendation. Mixed sealant that has cured does not require special waste handling procedures. Dispose of gloves, tape and other items containing cured sealant accordingly. Gloves and tools that have been in contact with any unmixed sealant should be treated and disposed of per the MSDS recommendation. Wash hands with soap and water.

Precautionary Information

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

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550. Address correspondence to: 3M Engineered Adhesives Division, 3M Center, Building 220-8E-05, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M Engineered Adhesives Division product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty, or strict liability.



This Engineered Adhesives Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



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