

Dymonic®

High-Performance, Low-Modulus, Expansion Joint Sealant

Product Description

Dymonic® is a high-performance, low-modulus, one-component, moisture-curing, polyurethane joint sealant.

Features and Benefits

Dymonic has a movement capability of $\pm 25\%$ of the original joint width, making it ideal for dynamically moving joints. Dymonic is available in 16 standard colors with several additional made-to-order colors.

Uses

Dymonic is specifically designed for sealing expansion and control joints in pre-cast tilt-up concrete, curtain wall joints and perimeter caulking around windows and doors. It can also be used for radon mitigation and bedding of mullions and frames. Dymonic exhibits tenacious adhesion, which will not diminish over product life.

Colors

Aluminum Stone, Anodized Aluminum, Beige, Black, Bronze, Buff, Hartford Green, Ivory, Light Bronze, Limestone, Off White, Precast White, Redwood Tan, Sandalwood, Gray Stone and White.

Packaging

10.1 oz (300 mL) cartridges, 20 oz. (600 mL) sausages, and 3 gallon (11.3 L) pails.

Coverage Rate

308 linear feet of joint per gallon for a 1/4" x 1/4" joint. For specific coverage rates that include other joint sizes and usage efficiencies, visit our website usage calculator at www.tremcosealants.com.

Applicable Standards

Dymonic meets or exceeds the requirements of the following specifications:

- ASTM C 920 Type S, Grade NS, Class 25, Use NT, M, A and O
- U.S. Federal Specification TT-S-00230C Class A, Type II
- CAN/CGSB 19.13-M87
- CFIA approved
- ULC registered

Joint Design

Dymonic may be used in any vertical or horizontal joint designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than 1/4" (6.4mm).

Joint Backing

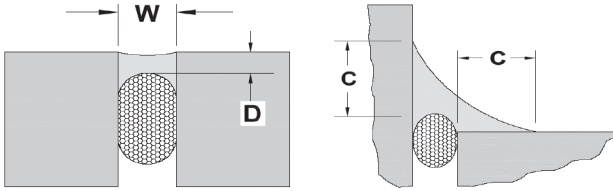
Closed cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at time of sealant application.

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Value
Rheological Properties	ASTM C 639	Non-sag (NS), 0" of sag in channel
Extrusion Rate	ASTM C 1183	51.8 ml/min.
Hardness Properties, scale "A"	ASTM C 661	20 \pm 3
Weight Loss	ASTM C 1246	Pass
Tack Free Time	ASTM C 679	Pass (18 hours)
Stain & Color Change	ASTM C 510	No visible color change/No stain
Adhesion-in-Peel	ASTM C 794	Concrete 20-28pli (89-125N), No Adhesion Loss
Effects of Accelerated Aging	ASTM C 793	Pass
Movement Capability	ASTM C 719	$\pm 25\%$

Sealant Dimensions

W = Sealant width, D = Sealant depth, C = Contact area.



EXPANSION JOINTS - The minimum width and depth of any sealant application should be 1/4" by 1/4" (6mm by 6mm).

The depth (D) of sealant may be equal to the width (W) of joints that are less than 1/2" wide. For joints ranging from 1/2" to 1" (13mm to 25mm) wide, the sealant depth should be approximately one-half of the joint width.

The maximum depth (D) of any sealant application should be 1/2" (13mm). For joints that are wider than 1" (25 mm) contact Tremco's Technical Service Department, or your local Tremco field representative.

WINDOW PERIMETERS – For fillet beads, or angle beads around windows and doors, the sealant should exhibit a minimum surface contact area (C) of 1/4" onto each substrate.

Surface Preparations

Surfaces must be sound, clean, and dry. All release agents, existing waterproofing, dust, loose mortar, laitance, paints, or other finishes must be removed. This can be accomplished with a thorough wire brushing, grinding, sandblasting, or solvent washing, depending on the contamination.

Tremco recommends that surface temperatures be 40°F (5°C) or above at the time the sealant is applied. If sealant must be applied in temperatures below 40°F, please refer to the Tremco Guide for Applying Sealants in Cold Weather that can be found on our website at www.tremcosealants.com.

Priming

Where deemed necessary, use Tremco Primer #171 for porous surfaces, and TREMPRIME Non-Porous Primer for metals or plastics. Dymonic typically adheres to common construction substrates without primers; however, due to the variability of substrate finishes such as Kynar and anodized aluminum, Tremco always recommends that a mock-up or field adhesion test be performed on the actual materials being used on the job to verify the need for a primer. A description of the field adhesion test can be found in appendix X1 of ASTM C 1193, Standard Guide for Use of Joint Sealants.

Application

Dymonic is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly and any primers have been applied. Fill the joint completely with a proper width-to-depth ratio and tool to ensure intimate contact of sealant with joint walls. Dry tooling is always preferred, although xylene can be used in limited amounts to slick the spatula if needed.

For a cleaner finish, mask the sides of the joint with tape prior to filling.

Cure Time

Dymonic cures at a rate of about 1/16" per day at 70°F and 50% relative humidity. Dymonic will skin within 24 hours and be tack-free in 3 days. The cure time can increase as the temperatures and/or humidity decrease. A good rule of thumb is one additional day of cure for every 10°F decrease in temperature.

Clean up

Excess sealant and smears adjacent to the joint interface can be carefully removed with xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with xylene or mineral spirits.

Limitations

- Do not apply over damp or contaminated surfaces.
- Use with adequate ventilation.
- Always utilize the accompanying MSDS for information on Personal Protective Equipment (PPE) and health hazards.

Warranty

Tremco warrants its sealants to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco sealants. Tremco's sole obligation shall be, at its option, to replace or refund the purchase of the quantity of Tremco sealant proven to be defective and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.



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