

## Dymonic® 100

### High-Performance, High-Movement Polyurethane Sealant



#### Product Description

Dymonic® 100 is a high-performance, medium-modulus, low-VOC, UV stable, non-sag polyurethane sealant. Formulated with an innovative polymer technology, Dymonic® 100 is highly versatile and has a unique capability to adhere to damp or green concrete.

#### Basic Uses

Dymonic® 100 is a durable, flexible, sealant that offers excellent performance in moving joints and exhibits tenacious adhesion once fully cured. Typical applications for Dymonic® 100 include all masonry expansion and control joints in the CavityComplete™ Wall System, perimeter caulking (windows, door, panels), aluminum, masonry and vinyl siding.

#### Features and Benefits

Dymonic® 100 can adhere to damp or green concrete and has a skin time of 2 hr with a tack-free time of 6-8 hr to significantly reduce dirt pickup. It has a movement capability of +100/-50% in typical field conditions, is low-VOC, paintable, jet-fuel-resistant, and will not crack, craze or yellow under extreme UV exposure.

Dymonic® 100 is compatible with Tremco's ExoAir air barrier products and the cold, fluid-applied TREMProof line of below-grade waterproofing products.

#### Colors

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

#### Packaging

10.1-oz (300ml) cartridges; 20-oz (600ml) sausages.

#### Coverage Rates

308 ft of joint per gallon for a 1/4" x 1/4" (6 mm x 6 mm) joint. For specific coverage rates that include joint size, and usage efficiencies, visit our website usage calculator at [www.tremcosealants.com](http://www.tremcosealants.com).

#### Applicable Standards

Dymonic® 100 meets or exceeds the requirements of the following specifications:

- ASTM C920 Type S, Grade NS, Class 50, Use NT, T, M, A, O, I
- U.S. Federal Specification TT-S-00230C, Class A, Type II
- CAN/CGSB-19,13-M87

#### Joint Design

Dymonic® 100 may be used in vertical or horizontal joints designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than 1/4" (6 mm).

#### Typical Physical Properties

Property	Test Method	Typical Value
Rheological Properties	ASTM C639	non-sag (NS), 0" of sag in channel
Hardness Properties	ASTM C661	40 ± 5
Weight Loss	ASTM C1246	Pass
Skin Time	ASTM C679	2 to 3 hr
Tack Free Time at 73.4 °F (23 °C) 50% RH		6 to 8 hr
Stain and Color Change	ASTM C510	No visible color change/No stain
Adhesion to Concrete	ASTM C794	Before Water: 35 pli
		After Water: 30 pli
		Green: >25 pli
		Damp: >20 pli
Effects of Accelerated Aging	ASTM C793	Pass
Movement Capability	ASTM C719	+50%
	ASTM C719*	+100/-50%
Tensile Properties	ASTM D412	
Tensile Strength		350 to 450 psi
% Elongation		800 to 900%
Modulus at 100%		75 to 85 psi
Tear Strength	ASTM D624	65 to 75 psi
Service Range		-40 to 180 °F (-40 to 82 °C)
Application Temperature		32 to 100 °F (0 to 38 °C)
Smoke Development	ASTM E84	5
Flame Spread	ASTM E84	5

\*Modified ASTM C719 Joint Backing

## 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.

## Detailing

Dymonic® 100 is used for detailing the board joints in exterior sheathing and the fastener heads in the CavityComplete™ Wall System. It is also used when repairing an errant whole in the insulation resulting from a misplaced or removed Pos-I-Tie® or screw. W = Sealant width, D = Sealant depth, C = Contact area.

## Expansion Joints

The minimum width and depth of any sealant application should be 1/4" x 1/4" (6 mm x 6 mm). 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". (13 mm to 25 mm) 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 Technical Services or your local Tremco Sales 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" (6 mm) onto each substrate, with provisions for release at the heel of the angle using backer rod or bond breaker tape.

## Surface Preparations

Surfaces must be sound and clean. All release agents, existing waterproofing, dust, loose mortar, 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](http://www.tremcosealants.com).

## Priming

Dymonic® 100 typically adheres to common construction substrates without primers. However, 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 C1193, Standard Guide for Use of Joint Sealants. Where deemed necessary, use Vulkem Primer #191 Low-VOC on porous substrates and TREMPRIME Non-Porous Primer for metals or plastics.

## Application

Dymonic® 100 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 compatible wetting agents can be used in limited amounts to slick the spatula if needed after an initial pass. For a cleaner finish, mask the sides of the joint with tape prior to filling.

## Cure Time

Dymonic® 100 generally cures at a rate of 3/32" per day at 75 °F (24 °C) and 50% RH. It will skin in 2 hr and be tack free in 6 to 8 hr. The cure time will increase as temperatures and/or humidity decrease. A good rule of thumb is one additional day 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

- Use with adequate ventilation.
- Always utilize the accompanying MSDS for information on Personal Protective Equipment (PPE) and health hazards.
- Dymonic® 100 is not recommended for use in chlorinated, potable, heavy or waste water.
- Although Dymonic® 100 is paintable, this does not imply adhesion to and compatibility with all paints. Please refer to Tremco Technical Bulletin No. S-09-05 for more information.

## Warranty

Tremco warrants its Products to be free of defects in materials but makes no warranty as to appearance or color. Methods of application and on-site conditions are beyond our control and can affect performance.

Please refer to our website at [www.tremcosealants.com](http://www.tremcosealants.com) for the most up-to-date Product Data Sheets.

The CavityComplete™ Concrete Masonry Unit (CMU) Wall System excludes the masonry veneer and concrete masonry units. A detailed list of the components is available at [www.CavityComplete.com](http://www.CavityComplete.com).

