

# DYMONIC 100

High performance, high movement polyurethane sealant

June 2024

## PRODUCT:

Dymonic 100 is a high performance, medium-modulus, low-VOC, UV stable, non-sag polyurethane sealant. Formulated with an innovative polymer technology similar to TREMproof 250GC. Dymonic 100 is a highly versatile sealant that has a unique capability to adhere to damp or green concrete.

## 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:

- Expansion and control joints
- Precast concrete panel joints
- Perimeter caulking (windows, doors, panels)
- Aluminium
- Masonry

## LIMITATIONS:

- Use with adequate ventilation
- Do not apply to ponded water surfaces

## STANDARD PACK:

Size	Colour	Product Code
600 ml	White	240121
600 ml	Black	240122
600 ml	Limestone	240123
600 ml	Grey	240124

## TECHNICAL DATA:

Typical Properties	Standard	Dymonic 100
Rheological	ASTM C639	Non-sag (NS)
Hardness	ASTM C661	40 +/- 5
Weight loss	ASTM C1246	Pass
Skin time	ASTM C679	2-3 hr
Stain	ASTM C510	No stain
Colour change	ASTM C510	No visible colour change
Effects of accelerate aging	ASTM C793	Pass
Movement capability	ASTM C719 (modified)	+100/-50%
Tensile properties	ASTM D412	
Tensile strength		2.4-3.1 MPa%
Elongation		800-900%
Modulus at 100%		0.5-0.6 MPa
Tear strength	ASTM D624	0.4-0.5 MPa
Service range		-40°C to 82°C
Application temperature		0°C to 38°C

## Key Benefits Summary

- Adhesion to damp or "Green" concrete
- Movement capability of +100/-50%
- Low-VOC
- Paintable
- Will not crack, craze or yellow under extreme UV exposure
- Jet fuel resistant
- Compatible with Tremco's line of Vulkem Deck Coatings, ExoAir air barrier products and the cold, fluid-applied TREMproof waterproofing products

## Standards

Dymonic 100 meets or exceeds the requirements for:

- ASTM C 920 Type S, Grade NS, Class 50, Use NT, T, M, A, O, I

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Note: Typical properties should not be used as specifications.

### USAGE GUIDELINES:

#### Joint Design

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

#### Joint Backing

Closed cell or open cell 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.

### COVERAGE RATE:

DEPTH	WIDTH			
	6mm	10mm	20mm	25mm
6mm	16	12	-	-
10mm	-	-	3	-
12mm	-	-	-	2

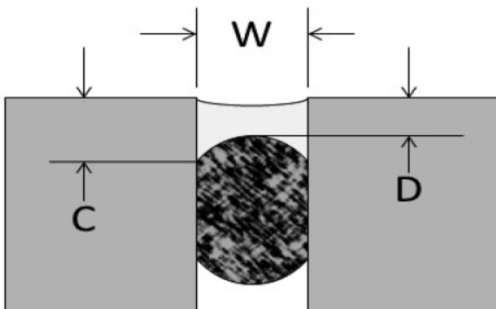
#### Fillet Joints Cross Section

6 mm x 6 mm = 32

10 mm x 10 mm = 12

### SEALANT DIMENSIONS:

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



### EXPANSION JOINTS:

The minimum width and depth of any sealant application should be 6mm by 6mm. The depth (D) of sealant may be equal to the width (W) of joints that are less than 12mm wide. For joints ranging from 12mm 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 12mm. For joints that are wider than 25mm contact your Equus Representative.

### WINDOW PERIMETERS:

For fillet beads, or angle beads around windows and doors, the sealant should exhibit a minimum surface contact area of 6mm onto each substrate.

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### SURFACE PREPARATION:

Surface must be sound and clean. Leave concrete 24 hours after stripping formwork. 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, sand blasting, or solvent washing, depending on the contamination. Surface temperatures must be 5°C or above at the time the sealant is applied. If sealant must be applied in temperatures below 5°C please refer to an Equus Representative for guidance.

### 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 C 1193, Standard Guide for Use of Joint Sealants. Where deemed necessary, use Vulkem Primer #171 on porous substrates and TREMproof 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 ration, and tool to ensure intimate contact of sealant with joint walls. Dry tooling is always preferred. 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 2.5mm per day at 24°C and 50% humidity. Dymonic 100 will skin in 2 hours and be tack free in 6-8 hours. The cure time will increase as temperatures and/or humidity decrease.

### CLEANING:

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.

### SHELF LIFE:

12 months when stored as recommended in original unopened packaging.

### HEALTH AND SAFETY:

The Safety Data Sheet (SDS) must be read and understood prior to use.

### WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
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### MANUFACTURERS CONTACT DETAILS:

Manufacture location	Australia
Legal and trading name of manufacturer	Tremco CPG Pty Ltd.
Manufacturer address for service	12/4 Southridge Street, Eastern Creek, NSW 2766, Australia
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