Dymonic® 100

HIGH PERFORMANCE, HIGH MOVEMENT POLYURETHANE SEALANT

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

PRODUCT INFORMATION

DESCRIPTION

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.

USAGE/PURPOSE

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
- ❑ Caulking under Tremco liquid membranes.

LIMITATIONS

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

PACK SIZE	PRODUCT CODE
600ml	
❑ White	240121
❑ Black	240122
❑ Limestone	240123
❑ Grey	240124

TECHNICAL INFORMATION

PERFORMANCE (Typical Properties)

- ❑ Rheological
  (ASTM C639) non-sag (NS)
- ❑ Hardness
  (ASTM C661) 40 +/- 5
- ❑ Weight Loss
  (ASTM C1246) Pass
- ❑ Skin Time
  (ASTM C679) 2-3 hr
- ❑ Tack Free Time
  (23°C 50% RH) 6-8 hr
- ❑ Stain
  (ASTM C510) No stain
- ❑ Colour Change
  (ASTM C510) No visible colour change
- ❑ Effects of Accelerated Aging
  (ASTM C793)Pass
- ❑ Movement Capability
  (ASTM C719*) +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

NOTE: Typical Properties should not be used as Specifications.
*Modified ASTM C719

USAGE GUIDELINES

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 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.

Dymonic® 100

COVERAGE RATE

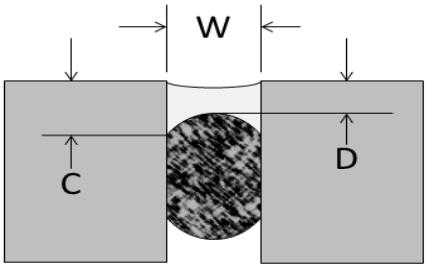
DEPTH	WIDTH			
	6mm	10mm	20mm	25mm
6mm	16	12	-	-
10mm	-	-	3	-
12mm	-	-	-	2

Fillet Joints Triangular Cross Section

- ❑ 6mmx6mm = 32
- ❑ 10mm x 10mm = 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 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 6mm onto each substrate.

SURFACE PREPARATION

- ❑ Surface must be sound and clean
- ❑ Leave concrete 24 hours after stripping formwork.
- ❑ All release agents, existing waterrpoofing, 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 a Tremco Representative for further 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 TREMprime Non-Porous Primer for metals or plastics.

METHOD OF 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.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% relative 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 & SAFETY PRECAUTIONS

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

TECHNICAL SERVICE

TREMCO has a team of qualified Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.

GUARANTEE/WARRANTY

TREMCO products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with TREMCO written instructions and (b) in any application recommended by TREMCO, but which is proved to be defective, will be replaced free of charge.

Any information provided by TREMCO in this document in relation to TREMCO's goods or their use is given in good faith and is believed by TREMCO to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. TREMCO makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

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