

TWO COMPONENT EPOXIDISED POLYURETHANE SEALANT

Key Benefits Summary

- Unique Color Pak® System provides visual control for onsite mixing, excellent colour uniformity and flexibility of colour choice.
- The low modulus of elasticity of DYMERIC® reduces bondline stresses during extension, minimising risk of sealant or substrate failure.
- Suitable for sealing of wide joints. Has been used successfully to seal 100mm plus vertical joints.
- Exceptional weather resistance - high UV and ozone resistance combined with a proven successful performance record in excess of 20 years worldwide.
- Long pot life - up to 7 hours at 25°C minimises material wastage.
- Non staining - does not stain most types of stone work such as marble, granite, limestone etc.

Standards

Dymeric® meets or exceeds;

- ASTM C920, Type M, Grade NS, Class 25, Use NT, M, A and O.
- US Federal Spec. TT-00227E, Class A, Type 2.
- CGSB 19-GP-24

PRODUCT INFORMATION

DESCRIPTION

Dymeric® is a multi-component high performance epoxidised polyurethane sealant, which provides a durable, weather tight seal in dynamically moving joints.

USAGE/PURPOSE

Sealing of:

- Structural expansion joints.
- Expansion joints between cladding panels.
- Joints in stone cladding.
- Movement joints in brickwork facings.
- Curtain wall movement joints.
- Perimeter joints around windows or doors.

LIMITATIONS

Dymeric® is not recommended for:

- Prolonged immersion in water.
- Trafficable joints, without written approval by TREMCO Technical Department.
- Exposure to harsh chemicals.

- Glazing applications.
- Special architectural finishes without prior testing.
- Certain grades of marble and stone work without prior testing and additional surface preparation.
- Substrates where the surface temperature is expected to exceed 82°C without written approval by TREMCO Technical Department.

COLOURS

A standard range of stable architectural colours is available.

PACKAGING

Dymeric® is packaged in standard 6 Litre pails, comprising neutral base and curative. Available packaging may vary by region, please check with your local TREMCO office for availability. A Color Pak® must be added to each unit.

APPLICATION EQUIPMENT

Bulk caulking guns, follower plates and mixing paddles are available direct from TREMCO.

TECHNICAL INFORMATION

COMPOSITION

Dymeric® is formulated from a unique TREMCO developed and patented epoxy terminated polyurethane to provide a high performance, chemically curing, gun grade joint sealant. The Dymeric® polymer exhibits excellent adhesion, which will not diminish over time. It adheres without primer in most applications (concrete, wood, brick, masonry, most types of granite, etc.) The low modulus and high recovery properties of Dymeric® sealant make it ideally suited for joints with high movement.

PERFORMANCE (Typical Properties)

- HARDNESS** ASTM D2240
Average Shore A = 35 (after 5 years ageing).
- ADHESION IN PEEL** ASTM C794
>1.8kg/cm on mortar, anodised aluminium, granite.
- DURABILITY** ASTM C719
Passed on mortar, granite and anodised aluminium at +25% movement.
- SAGGING** ASTM C639
Zero at 50°C.
- PERCENT SOLIDS**
96% after 7 days 25°C, plus 21 days at 70°C.
- POT LIFE** ASTM C603
Up to 7 hours at 25°C.
- TACK FREE TIME** ASTM C679
Less than 72 hours at 25°C.

TREMCO PTY LTD ABN 25 000 024 064
Unit 1, 2 Park Rd, RYDALMERE NSW 2116 Australia
Tel: (02) 9638 2755 Fax: (02) 9638 2955
tremco@tremco.com.au

Dymeric®

- INITIAL SET
16-24 hours at 25°C.
- LOW TEMPERATURE FLEXIBILITY
-54°C.
- STAINING ASTM C679
None
- ULTRA VIOLET RESISTANCE (ASTM G-26)
No adverse effects after 3000 hours Xenon exposure.
- ACCELERATED AGEING (ASTM E42)
No adhesive or cohesive failure, nor significant changes after 8000 hours.

NOTE: Typical Properties should not be used as specifications.

USAGE GUIDELINES

JOINT DESIGN CONSIDERATIONS

- Minimum joint size should be 4 times the anticipated movement.
- For optimum performance, the width to depth ratio of Dymeric® should be 2:1 subject to a minimum depth of 10mm on porous substrates and 6mm on non-porous substrates.
- A maximum depth of 16mm should be maintained for joint widths of 30mm or more.
- Sealant width should never be less than sealant depth.
- For fillet joints the minimum bite into each surface should be 10mm for porous substrates and 6mm for non porous substrates.

SURFACE PREPARATION

- Loose or friable material must be removed.
- Joint faces must be clean dry, clear of dust and free of substrates likely to impair adhesion.
- Metal and other non-porous surfaces should be wiped clean with Xylol or MEK, using the two cloth method. A trial application of the solvent is recommended to ensure there is no adverse reaction with the substrate.
- Remove any contamination by waterproofing, form release and curing agents that are not compatible with Dymeric®.

SEALANT BACKING

Install smooth faced, closed cell polyethylene foam rod under 20-30% compression. Sealant backing is installed to:

- Prevent sealant adhesion to the rear of the joint pocket.
- Control the depth of the sealant.
- Provide a firm base for tooling the sealant.
- Where joint depth is insufficient to allow the use of a backing rod, polyethylene or silicone faced self adhesive bond breaker tape should be used.

PRIMING

Dymeric® exhibits primerless adhesion to most common substrates such as masonry and concrete.

- In joint refurbishment situations or in case of high performance requirements on porous substrates, the use of TREMCO Primer No. 1 is recommended.
- Special architectural finishes such as marble and granite might require primer. Please consult your nearest TREMCO office for advice.
- All aluminium and other metal surfaces should be wiped clean with Xylol or MEK using the two cloth method, then primed with TREMCO Primer No. 6.
- Special coatings such as high performance paints should be submitted to TREMCO for adhesion testing.
- For further advice on priming please consult your nearest TREMCO office.

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MIXING

- Add the curative and a Color Pak® tint to the Dymeric® base and mix into the top few centimetres of the base.
- Holding the base container firmly, mix the product thoroughly for 3 to 4 minutes using a slow speed drill (175-300rpm) and a TREMCO approved mixing paddle. Stop and scrape the sides on the tin to remix the material into the centre. Continue mixing for a further 2 to 3 minutes.

NOTE:

- (i) Mixing of sealants at cold temperatures may be difficult due to increased viscosity, resulting in increased air entrainment. If possible store product at temperature above 10°C before mixing.
- (ii) The use of higher speed drills or incorrect mixing paddles may also cause air entrapment into the sealant during mixing.

METHOD OF APPLICATION

- Dymeric® can be loaded into conventional bulk caulking guns using the correct size TREMCO follower plate.
- Dymeric® should be applied at temperatures above +5°C.
- All beads should be tooled after application to ensure full firm contact with the joint faces.
- Use masking tape where appropriate.
- For joints over 50mm wide, contact TREMCO Technical Service for further advice.

COVERAGE RATE

(Approximate Linear Metres per Litre)

WIDTH	6mm	10mm	15mm	20mm	30mm	50mm
DEPTH						
6mm	27.8	16.7	-	-	-	-
10mm	-	10.0	6.7	5.0	-	-
15mm	-	-	-	-	2.2	1.3

CLEANING

- Immediately remove all excess sealant and smears adjacent to the joint.
- Uncured Dymeric® can be cleaned with Xylol or Toluol. These solvents can also be used to clean tools and equipment before sealant cures.
- Cured Dymeric® can only be removed mechanically.

HEALTH AND SAFETY PRECAUTIONS

Material Safety Data Sheet must be read and understood before use.

TECHNICAL SERVICE

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

GUARANTEE/WARRANTY

We warrant our products to be free of defects and manufactured to meet published physical properties when tested according to applicable specifications and TREMCO standards.

Under this warranty we will provide at no charge, product to replace any product proven to be defective when applied in accordance with our written instructions and in applications recommended by TREMCO as being suitable for this product. All claims concerning product defects must be made within 12 months of shipment. Absence of such claims in writing during this period will contribute a waiver of all claims with respect to such product. This warranty is in lieu of any and all other warranties expressed or implied.