

DUROSEAL 50FC

ADVANCED ONE COMPONENT POLYURETHANE SEALANT



DESCRIPTION

Duroseal 50FC is a one component advanced polymer, gun - grade, non - sag, moisture - cure sealant designed to skin and cure rapidly. This high performance product is designed with outstanding UV resistance and long term durability.

FEATURES

- Paintable
- Odour less
- Low VOC
- UV Resistant
- Fast Curing
- Excellent adhesion without priming
- Highly resistant to sea water, diluted acids and alkalis.
- Trafficable - recommended application as 2:1 with a limitation of 25mm width and 12mm depth.

USES

- Sealant is designed to seal construction joints.
- To seal waterproof rivet seams and roof rails.
- To seal perimeter joints around windows and doors.
- Sealing corner moldings, fabricated roof-lap seams, bumper assemblies and body-to-cab joints in motor homes.
- Sealing door hinges, skylights and portholes. Sealing Air conditioning equipment, flashing and gutters.

ADVANTAGES

- Excellent weatherability
- Permanently flexible
- Easy to gun and tool
- Cures to a tough, durable, elastic finish
- Paintable - non-sticky after cure
- Single component & Convenient Packing

TECHNICAL SPECIFICATION

Physical Properties	Test Method	Typical Value
Composition		Hybrid Polymer
Curing Type		Moisture Cured
Skin Time @ 25°C minutes		25min.
Tack Free Time @ 25°C minutes	ASTM C 679	50min.
Cure Rate mm/day @RT		2mm/24h
Specific Gravity	ASTM D1475	1.40g/mL
Service Temperature		-20° to +80°
Application Temperature		+5° to +40°
Joint Movement Capability, %	ASTM C 920	±50
Shore A Hardness	ASTM D2240	30
Tensile Strength	ASTM D412	1.2
Elongation at Break	ASTM D412	>600%

PACKAGING

- 600ml sausages

COLOURS

- Grey



EXPANSION JOINT DESIGN

Duroseal 50FC may be used in any joint designed in accordance with accepted architectural/engineering practices. Joint width should be at least 4 times anticipated movement, and not less than (5mm).

While applied on an expansion joint the depth (D) of the sealant should be equal to the width (W) of the joints that are less than 10mm wide. For wider joints, width to depth ratio should be 2: 1.

The maximum width of the joint on which Duroseal 50FC can be applied is 25mm.

JOINT BACKING

Closed cell 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 is insufficient for 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 the time of sealant application. Avoid using sharp tools.

YIELD

The following formula is an approximate guideline to calculate foreseen yield for a standard 600ml sausage of Duroseal 50FC.

$$L = 600 / (W \times D)$$

Where: L = Length of sealant in meters obtained per cartridge.

D = Depth of the joint in mm

W = Width of the joint in mm

Meter per 600 ml

Joint Width (mm)	10	12	15	20	25
Joint Depth (mm)	6	8	8	10	12
Joint Length (m)/600 m	10	6.2	5	3	2

APPLICATION DETAILS

SUBSTRATE PREPARATION

Surfaces must be sound, clean, and dry. All release agents, dust, loose mortar, laitance, paints, or other loose particles must be removed. This can be accomplished with a thorough wire brushing, sanding, or solvent washing, depending on the contamination. Durotech recommends that surface temperatures be below 40°C at the time the sealant is applied.

PRIMING

Duroseal 50FC typically adheres to common construction substrates without primers; however, due to the variability of substrate finishes available, where deemed necessary, use Duroseal Primer. Mockup or field adhesion test can be performed on the actual materials being used on the job to verify the need for a primer.

APPLICATION

Duroseal 50FC is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly. Mask the sides of the joint with masking tape prior to filling for a cleaner finish. 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 following the initial dry tooling.

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.

FOR OPTIMUM PERFORMANCE

In cool or cold weather, store container at room temperature for at least 24 hours before using.

Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant however, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.

Proper application is the responsibility of the user. Field visits by Durotech personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

LIMITATIONS

- Do not apply over damp or contaminated surfaces.
- Do not use Duroseal 50FC as a structural (load - transferring) sealant.

STORAGE AND SHELF LIFE

Duroseal 50FC C has a shelf life of 12 months when stored in tightly closed original casks, in a dry place at a temperature between +5°C and +25°C

CURING TIME

Duroseal 50FC generally cures at a rate of 2 mm per day at 25°C and 50% relative humidity.

DUROSEAL 50FC skin in 15 -20 minutes and be tack-free in > 30minutes. Lower temperatures and humidity will extend curing time.

HEALTH AND SAFETY

Use only with adequate ventilation. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection if the TLV is exceeded or used in a poorly ventilated area. Always utilize the accompanying MSDS for information on personal protective Equipment (PPE) and health Hazards.

Durotech Industries Pty Ltd

Address	14 Essex Street, P.O Box 5092, Minto, NSW 2566
Phone	+61 2 9603 1177
Fax	+61 2 9475 5059
Email	sales@durotechindustries.com.au
Web	www.durotechindustries.com.au

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