



Approved Quality
Management System
AS/NZS ISO 9001:2008
Lloyds Register-Certificate
No. MEL 0927759

Technical Data Sheet
SEASHIELD 550
EPOXY GROUT

Description:	Denso Seashield 550 Epoxy Grout is a water displacing encapsulation and repair grout. It provides a durable well bonded repair to concrete, timber and steel below water.
Composition:	A three component system consisting of an epoxy resin, hardener and a powdered aggregate.
Characteristics:	<ul style="list-style-type: none"> • good wet adhesion and water displacement capabilities • long pot life eases handling yet provides high early and ultimate strength pot life: @ 25°C: 150 minutes, @ 38°C: 45 minutes • cure temperatures time related, considerably longer at lower temperatures cure rates: @ 15 - 25°C: tack free 10 to 20 hours, full cure 30 to 60 hours @ 4 - 15°C: tack free 20 to 40 hours, full cure ≥ 120 hours can cure at temperatures as low as 0°C • mixing ratios: by weight A:B, 2:1 (do not alter) and A/B:C, 1:5 yields an 8.8 litre volume. The aggregate ratio can be altered depending on the application or site conditions • can be placed by pouring into formwork or pumping into place • designed for underwater placement and other wet applications • virtually non shrink for maximum durability and adhesion • seawater resistant • 100% solids, VOC free • aggregate (part C) treated with additives to reduce dusting while mixing
Uses:	Denso Seashield 550 Epoxy Grout is typically used for rebuilding piers, jetties and barrier walls. It is designed for underwater applications and is very effective for chemical anchoring of bolts, rail anchors, equipment bases and other structural applications.
Surface Preparation & Application:	<p>The surface must be clean and sound, free of oils, greases, dirt, wax, pre-existing coatings and all marine growth, foreign materials including laitance or other surface contaminants. All loose material must be removed. Any new concrete should be allowed to hydrate for a minimum 5 days prior contact with the grout. Proper surface preparation will improve grout adhesion and extend its service life.</p> <p>High pressure water blast or sandblast can be used to remove contaminants which will interfere with adhesion. A minimum 24 MPa pressure is used to water blast.</p> <p>Mix part A and B together with a low speed agitator (200 - 300 rpm) for at least 3 minutes. Occasionally scrape the sides and bottom to ensure the entire product is mixed properly. Mix while steadily adding the aggregate (part C). Continue mixing until a uniform compound is achieved with no streaks or dry lumps evident.</p> <p>Pour into formwork ensuring it is well compacted, vibrating where possible. If using wood forms line with paraffin wax or polyethylene sheet to ease formwork removal after compound has set.</p> <p>For pumping applications it is recommended that the Seashield 550 components be stored at 20 to 30°C for 24 hours immediately prior to use to achieve optimum handling during pumping and maximise productivity. Mix as per above then transfer to the hopper of the peristaltic pump. Prior to using the pump all lines should be primed by circulating Seashield Hose Lubricant.</p>



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Surface Preparation & Application: (continued)	<p>Pumping the lubricant is usually very rapid. Make sure all the lubricant is pumped out of the hose prior to pumping the mixed Seashield 550 Epoxy Grout .</p> <p>On completion of the work pump is best cleaned with equipment cleaner solution, available from Denso.</p>
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Recommended Temperatures:	<p>Application: ≥ + 0 °C, preferably + 15 to + 30 °C</p> <p>Service: - 10 to + 65 °C</p> <p>Peak: + 75 °C</p>
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Shelf Life: Storage:	<p>≥ 2 years</p> <p>Store in a dry, well ventilated area preferably at + 15 to 30°C, away from heat and direct sunlight.</p>
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Available Sizes:	<p>18 kg kits (8.8 L)</p> <p>Components: Part A (resin) - 2 kg Part B (hardener) - 1 kg Part C (aggregate) - 15 kg</p>
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Physical Properties:	Test	Test Method	Units	Value		
	Density	Grout Part A Part B Part C	ASTM D1475	kg/L	2.27 1.12 0.96 2.51	
	Viscosity	Part A Part B		ASTM D2196	cps	700 400
	Compressive Strength			ASTM C579	MPa	72.4
	Tensile Strength			ASTM C307	MPa	15.2
	Shrinkage		ASTM C531	%v/v	≤ 0.07	
	Bond / Shear Strength		ASTM C882	MPa	13.8	
	Water Absorption		ASTM C413	%w/w	≤ 0.45	

Limitations: Precautions:	<p>Do not alter the mixing ratio for Parts A to B.</p> <p>Dust respirator, safety goggles and rubber gloves should be considered. Avoid prolonged contact with skin.</p> <p>In case of contact with eyes, immediately flush with water for at least 15 minutes and seek prompt medical attention.</p> <p>Do not take internally. Keep out of reach of children. Follow all precautions found in any available Safety Data Sheets, product labels and technical literature.</p>
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