Denso 190DP Epoxy Grout

High Strength Deep Pour Grout

Description

Denso 190DP is a three-part, high strength, low exotherm epoxy grout designed for machinery baseplate grouting.

Uses

- Heavy machine bases
- Vibration dampening for equipment
- Large volume precision placements
- Support tanks, vessels and rotating equipment
- Installation of anchors and dowels

Features

- Low exotherm
- Excellent bearing area
- High strength gain
- Corrosion and chemical resistant

Surface Prep

Surface preparation is very important and will improve the adhesion and extend the life of the grout.

- Surface must be at least 40°F (4°C) prior to application.
- Surface must be sound and free of oil, grease, laitance, dust, dirt, waxes, foreign particles, and loose coatings.
- Surface must be free of standing water.

Steel Surfaces: The recommended method is to prepare the surface by abrasive blasting per SSPC-SP6/NACE 3 Commercial Blast. However, high-pressure water blasting is acceptable and shall be done at a minimum of 3,500 psi (24 MPa). Scraping and other manual means of surface preparation should be avoided since they tend to polish the surface. Apply grout immediately to prevent re-oxidizing.

Concrete: Concrete should be a minimum of 28 days old and fully cured prior to application. Prepare the surface by abrasive blasting per SSPC-SP13/NACE 6, ICI Guideline 310.2R CSP 5-7.

Form Prep

Formwork must be completely sealed and liquid-tight to prevent any leakage or seepage. It should be constructed of strong, rigid non-absorbent materials that are securely anchored together. Leave enough space between the formwork and baseplate to allow for a headbox. Set formwork slightly higher than the bottom of the base plate. Apply polyethylene film or wax to all forms to prevent adhesion of the grout.

Mixing

To achieve optimal performance, condition all components to between 70°F and 80°F (21°C and 27°C). Pour the entire contents of Part A and Part B into an appropriate mixing vessel (e.g. 5-gallon pail). Agitate with a low-speed mixer (200-300 rpm) for at least one minute, taking care not to entrap air during mixing. Pour mixed liquids into a mortar mixer. While mixing, slowly add the entire amount of Denso Aggregate 100 (Part C), one bag at a time, to the resin mixture. Mix until uniformly blended. Place immediately.

Application

Pour the mixed grout from one side only. Use of a headbox is recommended. Allow the material to flow freely, being sure that constant contact is maintained with the baseplate throughout the pour. Straps or chains pre-placed under the plate will help in working the grout across. Grout depth of 1” minimum and 18” maximum per lift. Note: Cold temperatures will significantly reduce flow characteristics. Higher temperatures will reduce working time. Contact technical support for guidance when application temperatures are below 59°F (15°C) or above 86°F (30°C).

Storage

Store in a dry, well-ventilated area between 40°F and 90°F (4°C to 32°C) in original, unopened containers. Shelf life is at least 24 months under these conditions. It is recommended that all components be stored between 68°F to 86°F (20°C to 30°C) 24 hours prior to use for optimum productivity.

Cleaning

Equipment is best cleaned with SeaShield Equipment Cleaner or Simple Green Concentrated Cleaner before material hardens.

HSE

Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See Safety Data Sheet (SDS) for further information.

Packaging

Kit Size	Part A	Part B	Aggregate Part C
3.5 gallons (13.2 liters) kit	1 ea. - 2.5 gallon (9.46 liters) pails	1 ea. - 1 gallon (3.78 liters) pails	5 ea. 50 lb. bags

TECHNICAL DATA SHEET

Product Data

Properties	Value
Mixing Ratio	
Liquid (A:B)	2.5 parts by volume Part A : 1 part by volume Part B
Grout (Filler:Liquid)	250 lb (113 kg) per 3.5 US gallon (13.2 L) unit of liquid
Product Yield (3.5-gallon kit)	
250 lb (113kg) Aggregate Part C	2.0 ft^3 (0.59 m^3)

Tech Data

Properties	Imperial	*Metric*
Compressive Strength (ASTM C579, Test Method B)		
1 Day	8,000 psi	*55.1 MPa*
2 Days	12,500 psi	*86.1 MPa*
7 Days	14,500 psi	*99.9 MPa*
28 Days	15,500 psi	*120.6 MPa*
Flexural Strength (ASTM C580, Ambient)		
7 Days	4,200 psi	*28.9 MPa*
28 Days	4,500 psi	*31.0 MPa*
Tensile Strength (ASTM C307, Ambient)		
7 Days	1,500 psi	*10.3 MPa*
28 Days	1,600 psi	*11.0 MPa*
Bond to Concrete (ASTM C882)		
7 Days	4,000 psi	*27.5 MPa*
Effective Bearing Area (ASTM C1339)	> 85% - High	
Coefficient of Thermal Expansion (ASTM C531)		
73°F to 210°F (23°C to 99°C)	1.9 x 10^{-5} in/in/°F	*3.4 x 10^{-5} mm/mm/°C*
Creep (ASTM C1181)		
400 psi @ 140°F (2.8 MPa @60°C)	4.3 x 10^{-3} in/in	*4.3 x 10^{-3} mm/mm*
600 psi @ 140°F (4.1 MPa @60°C)	5.4 x 10^{-3} in/in	*5.4 x 10^{-3} mm/mm*
Working Time @ 70°F (21.1°C)	60 minutes	

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