Dynagrout® 300

Low exotherm, free flow, Chemical resistant epoxy grout for grouting machine baseplate with dynamic loads and gaps upto 300 mm

The Construction Alchemists

Description

Dynagrout® 300 is a three component system consisting of base resin, liquid hardener and specially graded inert fillers. It is a low exotherm free flow, chemical resistant Epoxy grout which is specially formulated to meet the requirement of long working time and grouting of gaps from 10 mm to 300 mm or for grouting at high ambient temperatures (up to 55°C).

Features and benefits

- Low exotherm, permits grouting of gaps up to 300 mm
- Chemical resistant
- Long pot life allows long working time
- Good dynamic load response
- Low creep under sustained loads
- Non-shrink and hence ensures complete surface contact and bond.
- High compressive, tensile and flexural strengths.

Primary Application

Dynagrout® 300 is useful in grouting dynamically loaded machines with a gap of 10 – 300 mm between baseplates and the top of the foundation. Typical applications are reciprocating pumps, high speed turbines, cranes rails, centrifuges, pounding machine baseplates grouting.

Technical Properties

Properties	Age	@40°C
Compressive Strength (MPa), ASTM C 579	3 days	75 MPa
	7 days	100 MPa
Tensile Strenght (MPa), BS 6319 Part 7: 1993	7 days	11 MPa
Flexural Strength (Mpa), BS 6319 Part 3: 1993	7 days	30 MPa
Mixed Density	1.95 g/ml	
Pot life		
@ 40°C	50 Mins.	
@ 30°C	90 Mins.	
@ 20°C	240 Mins.	
Chemical Resistance	Oil, grease, fats, general industrial chemicals mild acids and alkalis, clean water and sea water	

Specification Clause

Recommended clauses for tender document

The machine base plate grouting shall be done using a pre-packed Dynagrout® 300 manufactured by Talrak and used in accordance with the instructions provided in the current data sheet for Dynagrout® 300

Technical performance specifications

The fully cured epoxy grout, after it has hardened shall have the mechanicals strength ≥ the values indicated below at ambient temperature.

Compressive strength at 7 days : 80 MPa

Tensile strength at 7 days : 10 MPa

Flexural strength at 7 days : 27 MPa

Application Instruction

For large grouting jobs, before the commencement of the actual grouting, it is essential to carryout a mock up trial to ensure proper distance of the flow, mixing time , pot life etc. of the mixed material

The grouting shall be started after the final alignment of the machine on the foundation and supported well with the shim plates. The sides of the baseplate which come in contact with Dynagrout® 300 shall be cleaned to remove all mill scales, grease, oil etc. The same can be done by sand, shot or grit blasting. The top of the concrete foundation shall also be cleaned well to remove all loose particles laitance spillage if any. Enough Dynagrout® 300 material shall be stored near the foundation to be grouted before hand. All the equipment such as paddle mixer, pouring chute, spatula etc. should be kept ready at the arms length.

Formwork

The formwork shall be placed such a way that he unrestrained surface area of the grout must be kept to a minimum. Generally, the gap between the perimeter formwork and the plate edge should not exceed 75 mm on the pouring side and 25 mm on the opposite side. Formwork on the flank sides should be kept tight to the plate edge. Air pressure relief holes should be provided to allow venting of any isolated high spots. The formwork shall be totally leakproof and properly support-ed to keep the same in position till the completion of grouting. All the joints and the gaps if any shall be sealed using foam / bitumen mastic sealant or any other elastomeric material strip which does not chemically react with epoxies. If the grout has to move for a longer distance from the point of pouring, a firm-ly fixed feeding hopper shall be provided on the pouring side on the formwork

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Mixing

The batch nos. on the labels of the package of shall be noted before opening of the pack. Pour all the contents of the hard-ener pack into the base container. Mix using a slow speed cup paddle mixer until homogeneous mix is obtained. Pour all the resultant liquid into a container with a capacity of 20 - 25 litres. Add all the filler provided and mix using the same mixer for two more minutes or until a grout mix with uniform colour and homogenous consistency is achieved. It shall be ensured that the mixed grout is supplied continuously for pouring. Hence number of mixers required should be planed in advance.

Placing

The mixed material shall be paced in the formwork within its pot life. The mixed grout should be poured steadily from one side only to eliminate the entrapment of air with continuously pouring the grout without any break. It is essential to regulate the time taken to pour a batch to the time taken to prepare the next batch of grout.

Cleaning

All tools and equipment should be cleaned immediately after use with Talrasol GP. Spillages should be wiped with sand or sawdust and disposed appropriately.

Limitations
Temperature

Though the performance of Dynagrout® 300 at low tempera-tures is assured, application under 25°C is critical. Hence it is recommended that, when the ambient temperatures is below 25ºC, the following guidelines are followed:

- Store the packs of Dynagrout® 300 as supplied in a room maintained at a temperature well above 25ºC.
- If the metallic surfaces of the machine baseplates, equipment those are likely to come in contact with the mixed material shall be kept warm.
- Try to avoid grouting operation during early morning and late night, when the temperature is low and falling.
- Minimum temperature of the mixed material to be 25ºC, and machine should be operated only be allowed 72 hours after completion of grouting.

Cautions

- Grout should not be placed in unrestrained edges and surfaces of the foundation **i**.e. base plate plinths, etc. Failure to comply may lead to crack development in the grout.
- At temperatures of 25°C and falling, the during rate will be slow but will reach the final strength eventually. However, if the temperature is 5°C and below, the material may have setting problem, due to very slow polymerisation. In such case the temperature should be raised artificially.
- In case of porous substrate of concrete, primer Talrak Epoprime LV is recommended.

Estimating
Packaging

Dynagrout ® 300 : 14 L pack
Talrasol GP : 5 & 20 L pack
Epoprime LV : 1 & 4 L pack.

Coverage

Epoprime LV : 5.5 - 6.5 m^2 per litre

Storage

Dynagrout® 300 has a shelf life of 12 months if kept in dry conditions at 20°C. If stored at high temperatures the shelf life will be reduced.

Precautions
Health & Safety Instructions

Dynagrout® 300 contains resins which may cause sensitization by skin contact. Avoid contact with skin and eyes and inhalation of vapour. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide ad-ditional skin protec-tion. Should accidental skin contact occur, remove immediately with a resin removing cream, fol-lowed by soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire

Talrasol GP is flammable. Keep away from sources of ignition. No smoking. In the event of fi re extinguish with CO2 or foam. Do not use a water jet.

Flash Point

Talrasol GP : 33°C
Epoprime LV : 34°C

Talrak Construction Chemicals Pvt. Ltd.
An ISO 9001:2015 Certified Company

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