

HIGH STRENGTH, NON-SHRINK, FREE FLOW GROUT FOR FOUNDATIONS

Description

Dr. Fixit Pidigrout 10M comprises of hydraulic setting binders, selected aggregates and expansion control additives that need only addition of the requisite quantity of water at site. It is used for grouting of machinery and equipments as it is ready to use, non-shrink, free-flowing, high strength and dynamic load stable cementitious grout.

Specification

Meets the requirements of ASTM-C-1107 & CRD-C-621-83.

Areas of Application

- Heavy machineries & equipments foundation.
- Bridge bearing pad & structural columns in pre-cast crane rail construction grouting.
- Boiler foundation & turbine generator bearing plates.
- · Cavities, gaps, recesses and anchorage.

Features & Benefits

- **Controlled expansion** Non-shrink with controlled positive expansion prevents shrinkage cracking & contact area loss.
- Flow High flowability helps in grouting of larger base plates.
- Consistency No bleeding and segregation which controls the flow & strength development of the grout.
- Early Loading Excellent for dynamic and static loading conditions.
- High Early strength High early strength & quick turn around saves time.
- Chloride free Free of chlorides which prevents corrosion of foundation bolts & base plates.
- Drill resistant High drill resistance property.
- Self-compaction It is Self-compactable.
- Grouting height Easy to grout machine base plates up to 70 mm.
- Contact area After curing it provides minimum 95% contact area with the base plate.

Method of Application

1 PRE APPLICATION CHECKLIST

- Arrange for PAN mixer for mixing of grout and storage vessel for storing & placement of the grout after mixing.
- Before the grouting starts ensure availability of potable mixing water, sufficient manpower, mould release agent, steel rod for mixing the grouts, 100-150 mm sized stones/pebbles, strong form work of wood /metal.
- Calculate the grout quantity required as per the grouting volume and keep 10% extra quantity to take care of wastage and contingencies.

2 SURFACE PREPARATION

- Clean the surface with wire brush to remove loose particles & hidden dirt on the concrete surface.
- Wash the grouting area with water and saturate it for at least 24 hours before starting the grouting operation.



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3 APPLICATION

- Align the base plate using level bottles. Fix shuttering and grout pouring hopper. Seal the shuttering joints using high consistency grout (Fast setting) or sealant. Allow it o set for minimum 4-5 hours.
- Wet the inside area of PAN mixer with water before starting to mix the first batch of Dr. Fixit Pidigrout 10M.
- According to the grout consistency requirement, the water addition for 50 kg of Dr. Fixit Pidigrout 10M at 27°C should be approximately 7.0 to 7.5 litres for flowable consistency and 6.5 to 7.0 litres for dry & trowelable consistency.
- During summer or whenever the temperature is more than 30°C use crushed ice to lower down the temperature of mixing water below 25°C. This ensures the proper flow of the grout.
- Ensure that the mixer is damp but free of standing water.
- Add approx. 85-90% of measured water (as per water to powder ratio depending upon required consistency) into the mixer and then slowly add the contents of **Dr. Fixit Pidigrout 10M** pack. Mix for 1-2 minutes and then add remaining approx. 10-15% of water.
- Allow mixing for additional 2-3 minutes until a smooth, uniform, homogeneous, free flowing mix is achieved.
- Check the flow of mix grout using flow table or flow channel. Record the temperature of mix grout it should not be more than 40°C.
- Pour the mixed grout into hopper maintaining the grouting shoulder. Start pouring the grout by opening the gate of hopper by maintaining the grout shoulder from 150–250 mm.
- Once the grout reaches at other end & touches the base plate center, stop pouring of grout. Do not disturb the poured grout for at least 24 hours.
- In unrestrained area it is advised to add 5-10 mm size coarse aggregates and mix them with the grout at the top surface only to prevent cracking while expansion.
- Cover the exposed areas of grout by wet burlap (jute bag) to prevent cracking due to heat generation during curing of grout.

Precautions & Limitations

- For large pours, the grouting operation shall be done in steps with a high head or by a grouting pump to avoid air entrapment.
- Do not add extra water in any circumstances.
- Ensure that the shuttering is leak proof.
- Pour the mix only from one end under the gravity of 6 to 8 inches head.
- Soak the area with water for 24 hours before grouting.
- For greater depth (more than 75 mm), fill clean, pre-washed, crushed 10 mm down aggregates (around 40% by weight of powder).
- Do not undertake grouting in high temperature conditions.
- Incase of any doubt on critical parameter, it is advisable to seek clarification from our technical team.



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Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Appearance		Free flowing powder
Colour		Cementitious grey
Water / Powder		0.13 - 0.15
Flow on table @30°C min 260mm Fresh wet Density, Kg/m³		2200 +/- 50
Initial Setting Time, Minutes		> 300
Final Setting Time, Minutes		< 600
Compressive Strength, N/mm ² 1 Day 7 days 28 days	ASTM C 109: 1999	25 55 66
Flexural Strength, N/mm², 28 days	ASTM C 580	10
Tensile Strength, N/mm², 28 days	ASTM C 307	5
Pull Off Adhesion Strength, N/mm²	BS 1881, Part 207	1.5
Expansion (%) - Restrained Condition - Unrestrained Condition		+ 0.15 to 0.4 Up to 2 (Plastic State)

PACKING

50 kg

Coverage

Yield: 26.20 ltr per 50 kg bag

Shelf Life & Storage

Shelf life is 6 months from the date of manufacturing. Store at cool & dry place, away from moisture.

Health & Safety Precautions

- As with all chemical products, caution should always be exercised.
- Protective clothings such as gloves and goggles should be worn (see packaging for specific instructions).
- Treat any contact to the skin or eyes with fresh water immediately.

Instructions

Please note that initial final setting time, curing time and compressive strength are related to atmospheric temperature during the time of application. Low temperature will extend the above properties and vice a versa.



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Other Product Categories Available

DR. FIXIT has wide range of Waterproofing & Construction chemicals which includes,

- Waterproofing Products
- Repair Products
- Sealants
- Flooring Products

- Exterior Coating Products
- Tile Fixing Range
- Concrete Admixtures
- Grouts



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