

ArmGrout M-50

(Formerly known as MYK Grout M-50)

Free flow Non-shrink expansive grout



TECHNICAL DATA SHEET

Product Description

ArmGrout M-50 is recommended for precision grouting where it is essential to withstand static load and typical applications like base plates of turbine, Generators, compressors, boilers etc. It is basically a free flow non shrink high strength expansive, grout. It is based on port land cement with graded aggregated and additives which impart controlled expansion in the plastic state. The non shrink grout function is three folds, to fill the voids between the base plate and the concrete foundations completely and permanently without shrinkage or separating from either to transfer all loads from the base plate to the concrete foundation and to maintain precise alignment. It effectively transfers all operational loads to the foundation.

Features and Benefits

- Develops very high early and final strengths
- Non-shrink: basically a non-shrink material occupies the filled space without shrinkage
- Pre-packed, factory blended
- Non-metallic Free flow: it has excellent flow characteristics and has positive expansion during setting and ensures high level contact with bond area
- Chloride free: it is basically a chloride free material and does not affect the steel or foundation bolts.

Application Method

Surface Preparation:

The substrate must sound clean and free from contaminations, all loose particles must be removed. The steel and concrete surfaces must be etched mechanically to enhance the bonding properties

Mixing:

For best results a mechanically powered grout mixer should be used. When quantities up to 50kg are used, a heavy duty slow speed drill (400-500 rpm) fitted with a paddle is suitable. Larger quantities will require a heavy duty mixer. To enable the grouting operation to be carried out continuously, it is essential that sufficient mixing capacity and labour are available. The use of a grout

holding tank with provision to gently agitate the grout may be required.

The water content should be accurately measured into the mixer. The total content of the ArmGrout M-50 bag should be slowly added and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency & No lumps in the mix.

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Technical Data

Compressive strength: (BS 1881- part 116: 1983)

Age/ Days	Compressive W/P 0.18	Strength in N/mm ²
1 Day	Minimum	15
3Days	Minimum	30
7 days	Minimum	40
28 Days	Minimum	50

Note: Cubes Size of the cubes used 70.6mm x 70.6mm x 70.6mm tested at 30degreeC.

Flexural Strength at 300degreeC: BS 4551/1998

Age/ Days	Flexural Strength in N/mm ² W/P ratio: 0.18
7 Days	Approx. 6.7
28 Days	Approx. 8.1

Tensile Strength: Approx. 3.3 N/mm²@ 28 days, 30degreeC temp.

W/P: 0.18.

Controlled Expansion: 1.94 % in the plastic state

Fresh wet density: at flowable consistency: Approx. 2.25

Compressive strength with addition of aggregates

Days	Compressive strength (N/mm ²) W/P 0.18			% of aggregates (IS 516 - 1959)
	50%	75%	100%	
1	27	31	33	
3	45	51	55	
7	55	63	68	
28	60	70	72	

Water Powder Ratio:

Consistency W/P

Flow able 0.16 to 0.18

(Up to the flow able consistency and total bleed free mix but maximum. Up to 0.18)

Water required for 25 Kgs bag : 4.50 Lts @ W/P Ratio 0.18

Flow Characteristics: The flow is basically depends on the gap width and the head of the grout and governed by the gap width.

Yield: 13.0 Lts at flowable consistency for 25 Kgs of HDPE bags

Application:

Pre soak the concrete surface with lots of clean water before the application is carried. All the surplus water is removed before the grouting application is carried out.

Placing:

At 30degreeC the grout within 15 minutes of mixing to gain the full benefits of the expansion process. Continuous grout flow is essential for large applications. Sufficient grout must be prepared before starting. The time taken to pour a batch must be regulated to the time to prepare the next one.

Working Time:

Following mixing the material should be placed within 15 minutes at 23degreeC (depending upon the temperature and other conditions).



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Packaging

25 Kgs HDPE bags

Storage and Shelf Life

Store under covered, in unopened condition, clear of the ground in cool dry condition, protected from frost and excessive draught. When stored in the above conditions to be used with 6 months from the date of manufacture.

Health & Safety

The entire exposed surface must be adequately cured with clean water.

The form work should be constructed to be leak proof. This can be achieved by using suitable material or by using foam rubber strip or mastic sealant beneath the constructed form work and between joints

Do not place the grout when the ambient temperature is 5 deg Celsius. Use hot water to gain the strength when the temperature is low and cold water when the temperature is high



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Product Categories Available



Legal Note

The information, and, in particular, the recommendations relating to the application and end-use of MYK Arment products, are given in good faith based on MYK Arment current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with MYK Arment's recommendations. In practice, the difference in materials, substrates and actual site conditions are such that no warranty in respect of merchant ability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application & purpose. MYK Arment reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.