

## Cementitious flowable non shrink expandable grout

### Uses

**POYPATCH AN 312** is a polymer modified, single component , special purpose cementitious non shrink grout with expand additives, good flowability characteristics, excellent adhesion and durability .

It is a factory blended , quality controlled , ready to use mixture in powder form.

### Advantages and Description

- Supplied ready to use
- Easy to apply.
- Non shrink and expandable
- High flowability
- Contains hard aggregates, with very special additives which gives very good compressive strength and non shrink characteristics.

### Application area of POYPATCH AN 312

- Concrete ancores
- Gavities and wide cracks.
- Base plates. -In concrete repair.
- In machine foundations
- Columns in pre cast constructions.

### Color

Standard color is cement concrete grey color .

### Instructions for use

\* Protect the working area from wind and direct sunlight. the weather conditions must be taken into account to minimize it's effect on the fresh mortar.

\*Slowly add one bag of(25 kg) POYPATCH AN 312 into 3.5 max -4.5 liters of clean or tap water in the mixer, the water proportion depends on the weather condition, in hot conditions it is advisable to use maximum required water content

\*Add and stir well for 4-5 min until reaching the required consistency.

\*Mix for another 2-3 minutes then start application.



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### Technical properties of POYPATCH AN 312 Suitable ASTM C1107 and CRD-C621-83

Table 1.0-TECHNICAL PROPERTIES

Material properties	Non shrink and expandable cementitious grout, High polymer modified for thin layer and any thick apply to extra desired properties can be add accountint to jobsite condition by the Metop Ltd
Slump (UN 8997)mm	> 40
Water content	For 25 kg mixture, Min 3.125 lt, Max.4.300 lt /per bag
Consistency	Semi-Flowable
Flexular strength (mechanical properties at 16% water content)	After curing for 1 day-----6.5 Nmm2 3 days-----7 Nmm2 7 days-----8 Nmm2 28 days-----9-11 Nmm2
Compressive strength	After curing for 1 day-----35-40 Nmm2 3 days-----40-50 Nmm2 7 days-----50-60 Nmm2 28 days-----60-75 Nmm
Density (wet)	1950-2200 Kg /m3
Application temperature	(+5 , +35 ) o C
Workability time	30-45 min at 20 o C
Storage	Dry, non humid area, not more than five bags can be stacked on top of each other. Should not be stored more than 5-6 month
Bleeding	Non (UN 8998)
Chlor content	Does not contains any chlor.
Freez and thaw repetition resistance	No changes in elasticity modulus after 300 repetitions .
Expansion at plastic stage	> 0.3 %
Elasticity Modulus	25.000 N/mm2 (in 7 days) , 28.000N/mm2 (in 28 days)
Chemical resistance	Resistant to Sulphates , chlor and carbon dioxide,Oil and extra heat resistance than concrete
Bond strength	Approx. 4-6 N/mm2
PULL OFF strength	>3.8 N/mm2
Application Thickness	1-4 cm (POLYPATCH AN 411 ), 5-10 cm POLYPATCH AN 412- 1-4 cm for POLYPATCH AN 312
Package	25 kg craft bags –or big bags



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### Application of the grout :

- \*The mix is poured into the mold in a continuous motion without interruption.
- \*No other machine should be used near the fresh grout until the grout hardened.
- \*The fresh mix must only be poured from one end only.
- \*Use the help of flexible steel wire to place the grout under the steel plates.
- \*Any unwanted prominent parts or angles should be removed after the grout has hardened . \*Wait atleast two days before removing any adjustment blocks.
- \*Control all nuts and screws of the machine after it starts working.

### Curing

100-200 g/m<sup>2</sup> **METOCURE** curing agent should be applied to the dry cleaned exposed grout surface . It is manufactured to conform to ASTM C309.

**METOCURE** has the advantage of preventing initial water loss from the concrete surface and eventually result in better quality and higher strength concrete . Depending on the type of curing agent used best results can be achieved if no moisture is present on the surface of concrete during the curing agent application

### Storage : -

Store in a dry , non humid area,away from direct sunlight.

-No more than five bags should be stacked on top of each other,

-For cement based grout. preferably use in 6 months from production date and if properly stored this period can be as long as 6 months.

### Cleaning

All tools should be washed with water after use.

### Cution:

**Fire:** POYPATCH AN 312 is not flammable.

### Health and safety

**POYPATCH AN 312** is a cementitious material and become alkaline when mixed with water therefore avoid contact with skin it can be harmful and wash thoroughly with water.



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### LIMITED WARRANTY

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct also based on our long experience in this field of construction.

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