

# MasterFlow<sup>®</sup> 916 PG / TIX

**Fast setting, economic, two-component polyester anchoring grouts**

## DESCRIPTION

**MasterFlow 916 PG and MasterFlow 916 TIX** are respectively, pourable and thixotropic grades, of two component, fast setting, very high strength polyester mortars used for anchoring and fixing. Gel times have been optimized for use in Middle East conditions providing sufficient work time without compromising fast strength gain and return to service.

## TYPICAL APPLICATIONS

For fixing and anchoring:

- Reinforcing starter bars.
- Holding down bolts of baseplates.
- Tie bar installation.
- Crash barriers, ballustrades, handrails and fence posts.
- TV satellite dishes and general fixing.

**MasterFlow 916 PG** pouring grade material is used in vertical downward holes in horizontal surfaces.

**MasterFlow 916 TIX** is a thixotropic version designed especially for use in horizontal holes on vertical surfaces and overhead applications.

## ADVANTAGES

- Easy to mix and apply
- Small pack size to minimize waste
- Two grades available for different applications
- Early rapid strength gain
- Vibration and corrosion resistant
- Damp and wet conditions will not affect cure or strength gain
- Can be placed underwater
- Non- expansive

## PACKAGING

**MasterFlow 916 PG** is supplied in a 1 L pack consisting of:

0.5 kg formulated polyester resin

1.5 kg of catalyzed filler.

**MasterFlow 916 TIX** is supplied in a 1 L pack consisting of:

0.4 kg formulated polyester resin

1.6 kg of catalyzed filler.

## TYPICAL PROPERTIES\*

|   |                        |
|---|------------------------|
| Compressive strength @ 7 days (BSEN 12190 @ 35°C) | >105 N/mm <sup>2</sup> |
| Tensile Strength @ 7 days (ASTM C307 @ 35°C)      | >12 N/mm <sup>2</sup>  |
| Flexural strength @ 7 days (ASTM C580 @ 35°C)     | >30 N/mm <sup>2</sup>  |
| Pot life @ 20°C                                   | 25 min                 |
| Pot life @ 30°C                                   | 15 min                 |
| Pot life @ 40°C                                   | 10 min                 |
| Minimum load time @ 20°C                          | 4 h                    |
| Minimum load time @ 30°C                          | 2 h                    |
| Minimum load time @ 40°C                          | 1 h                    |

## APPLICATION GUIDELINES

### Hole preparation

Optimum performance is achieved when holes are formed using rotary percussive drills and blown clean with oil free compressed air.

Holes created with diamond drills should be undercut or dovetailed. Similarly, cast holes should be dovetailed where possible or rough sided to provide sufficient mechanical key.

### Bar preparation

Bars or threaded rods should be deformed, degreased and free of all loosely adhering rust and mill scale. Cutting the bars at 45° assists in insertion into the resin filled holes.

### Material mixing

Only mix full packs as provided preferably using a slow speed drill (350 rpm) and mixing paddle. Mix for the minimum time until a smooth lump free consistency is obtained.

### Placing

**MasterFlow 916 PG** should be poured steadily into the prepared hole.

**MasterFlow 916 TIX** should be injected into the rear of the hole to avoid air entrapment.

Do not overfill as this will result in wastage and make it difficult to insert the bar or threaded rod.

The bar or rod is inserted with a twisting motion to the required depth and left undisturbed until the anchor grout has set.

# MasterFlow<sup>®</sup> 916 PG / TIX

## Recommended hole depths

| Concrete strength   |                  |          | 30 N/mm <sup>2</sup>  | 40 N/mm <sup>2</sup> |
|---|------------------|----------|-----------------------|----------------------|
| Permitted concrete shear strength using type 1 bar (N/mm <sup>2</sup> ) |                  |          | 2.2                   | 2.4                  |
| Bar diameter mm   | Hole Diameter mm | Yield KN | Minimum hole depth mm |                      |
| 12  | 16               | 51       | 225                   | 200                  |
| 16  | 20               | 91       | 400                   | 355                  |
| 20  | 25               | 142      | 500                   | 440                  |
| 25  | 32               | 221      | 615                   | 540                  |
| 32  | 38               | 363      | 845                   | 745                  |

## CLEANING

All tools should be cleaned with solvent before the material has cured. Thereafter, they can only be cleaned mechanically.

## COVERAGE / YIELD

The following table provides the volume of grout required per 100mm of bonded length.

| Bar diameter mm | Hole diameter mm | Material usage per 100mm bonded length* (ml) |
|-----------------|------------------|--|
| 10              | 14               | 8  |
| 12              | 16               | 9  |
| 16              | 20               | 12   |
| 20              | 25               | 18   |
| 25              | 32               | 32   |
| 32              | 38               | 33   |

\*Coverage is theoretical. Based on site conditions consider adding 25% wastage

## WATCHPOINTS

Despite the relatively high glass transition temperature of the MasterFlow resins it should be noted that continual load at temperatures over 45°C may induce creep within the cured grout.

Structural load bearing performance will be drastically reduced in event of fire.

## STORAGE AND SHELF LIFE

Shelf life is 12 months when stored in original packaging below 23°C out of direct sunlight. Storage in any other conditions will reduce the shelf life significantly e.g. 3 – 6 months.

## HEALTH AND SAFETY

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

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