

MASTERFLOW® 410

High strength, free flowing epoxy grout

Description

MASTERFLOW 410 is a solvent free epoxy resin grout formulated to withstand static and dynamic loads in a wide variety of applications. The product is three component and easily mixed on site to a pourable consistency. MASTERFLOW 410 is suitable for an application thickness range of 40-120mm where high flow characteristics are required. Thickness may be reduced to 20mm when flow is not required.

Typical applications

- Anchors and fixing bolts
- Crane and transporter rails.
- New and old machine base plates.
- Structural filling of holes and cavities in concrete.
- Industrial equipment and machinery subject to static or dynamic forces.
- Equipment where chemical and acid spillage occurs.
- Pile cap waterproofing (at ≥ 20 mm thickness)

Advantages

- No priming required.
- High tensile, flexural and compressive strength.
- Excellent adhesion to steel and concrete.
- Rapid installation and strength gain to ensure early commissioning of equipment.

- Excellent fatigue resistance.
- Compatibility with equipment subject to extensive thermal movement.
- High resistance to dynamic loads and chemical attack.
- Non-shrink and tolerant of damp surfaces.

Typical properties*

* Properties listed are only for guidance and are not a guarantee of performance.

Pot life:	at 25°C	70 min
	at 40°C	40 min
Compressive strength	24 hrs	88 N/mm ²
	3 days	92 N/mm ²
BS 6319 Part 2:		
	7 days	96 N/mm ²
Flexural strength		
BS 6319 Part 3:		25 N/mm ²
Tensile strength		
BS 6319 Part 7:		13 N/mm ²
Density:		2175kg/m ³
Cure:	at 25°C	7 Days
	at 40°C	3 Days

Packaging / yield

MASTERFLOW 410 is supplied in 15kg and 30kg units, which yield approximately 7 and 14 litres respectively.

Composition

Bisphenol A epoxy resin base, a low viscosity liquid reactor which when mixed with the inert aggregate forms an easily pourable and mobile grout.

Chemical resistance

The resistance of MASTERFLOW 410 to most common corrosive chemicals is excellent:

- Dilute and concentrated alkalis
- Most dilute acids
- Oil and petrol
- Ammonia
- Formaldehyde
- Saline solutions
- Mineral oil, vegetable and animal fats

Application procedure

Surface preparation:

As with all epoxy resin applications the quality of surface preparation has a direct effect on the performance and durability of the system. Concrete surfaces should be sound, dimensionally stable, clean, free from laitance, paint, oil, grease, mould release agent and residual curing compound. Metal surfaces or components to be bedded, should be free from any rust or scaling. Formwork, if used, should be wrapped in polythene to ensure a clean release.

Mixing:

Do not split packs or alter the ratio of resin components in any way. Mix with a slow speed drill and paddle. Add the contents of the reactor container to the base component in a suitable mixing vessel, ensuring complete transfer of both resin components.

Mix for one minute before slowly adding the aggregate and continue mixing until a flowing, pourable consistency is achieved. Do not overmix as that may entrain air.

Placing:

Place immediately after mixing, into the prepared area in such a manner that it has the shortest distance to flow. For longer pours a suitable head of pressure may be required. Ensure the area to be grouted is **not** completely sealed, and any displaced air can be expelled. Pour continuously from one end only.

Allow the grout to set prior to removal of formwork (normally after 6 hours). Where placement exceeds depths of 120mm, application should be carried out in layers. The second layer to be applied after 6 hours.

Limitations

Do not apply MASTERFLOW 410 when the contact surfaces are less than 10°C. If the ambient temperature is less than 10°C then artificial heating may be used.

Equipment care

Clean all equipment promptly with CLEANING SOLVENT NO. 2. Any excess cured material will have to be mechanically removed.

Storage

Store under cover, out of direct sunlight, and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Degussa's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product is fully cured or dried). Treat splashes to skin and eyes immediately. If accidentally ingested, seek medical attention. Reseal containers after use. For specific storage and disposal instructions refer to the Material Safety Data Sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Degussa representative.

Degussa reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality

All products produced by Degussa certified manufacturing facilities, are produced to conform to systems designed to meet internationally recognised quality standards.

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REQUEST AND REFER TO RECOMMENDED
INSTALLATION PROCEDURES FOR **MASTERFLOW**
EPOXY GROUTS PRIOR TO USE