

MASTERFLOW® 628

Multi-purpose epoxy resin grout

DESCRIPTION

MASTERFLOW 628 is a solvent-free multi-purpose high performance epoxy resin based grouting system designed for structural applications in adverse weather conditions. **MASTERFLOW 628** is supplied as a two component system, with a high flow capability.

RECOMMENDED FOR

- Areas requiring a moisture insensitive bond to the concrete substrate
- Bolt, rebar structural anchoring, hold down bolts
- Baseplates and machinery grouting
- Crane rails and tight clearances
- Exterior grouting and repair applications

FEATURES AND BENEFITS

- **High early and ultimate strength**
- **High bond strength**- to correctly prepared concrete and to steel
- **No on site measuring** – supplied in pre-measured volumes eliminating the need for on site measuring and ensuring product success
- **Pumpable** – easily pumped through suitable equipment
- **Displaces water**
- **Excellent chemical resistance** - to oils, mineral acids, fuels and alkali solutions
- **Resistance to** - vibration and high repetitive dynamic loads

PERFORMANCE DATA

Compressive strength (50mm cubes)	12 hours	10 MPa
	24 hours	32 MPa
	7 days	98 MPa
Tensile strength	55 MPa	
Bond strength to concrete	concrete fails	
Bond strength to steel	14MPa	

The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

Chemical Resistance - MASTERFLOW 628 resists most hydraulic and lubricating oils, common organic solvents and alkalis including strong caustic solutions. Chemical resistance depends on the chemicals involved, their concentration, temperature and degree of exposure. Good housekeeping practices such as immediate cleanup of all spillage will greatly extend the working life of the product.

Pot Life

Pot life will vary depending on quantity mixed and placed and temperature. The larger the volume and the higher the temperature, the shorter will be the pot life. As a guide, the pot life of a 10kg kit mixed at 23°C would be approximately 30 minutes.

PROPERTIES

	Part A	Part B	Mixed
Supply Form	White	Black	Off White
	Viscous	Thin	Viscous
	Paste	Liquid	Liquid
Viscosity			7Pa.s
Density			1.7kg/m ³
Temperature during application (internal locations)			5°C - 35°C
Pot Life (at 23°C)			30mins

ESTIMATING DATA

MASTERFLOW 628 is available in a two-component pack of 10kg which yields approximately 5.9 litres when mixed.

APPLICATION

Application Thickness - Suitable minimum and maximum thickness depends on a number of factors including clearance, distance to be flowed and ambient, surface and product temperatures. A header form is generally required for long flows. 50mm maximum thickness per pour down to 1.5mm under head pressure.

Surface Preparation - Concrete should be well cured, at least 28 days old and have a minimum compressive strength of 25MPa. Clean surface thoroughly to remove all contaminants such as dirt, oil, grease, wax, rust and coatings. Remove laitance and roughen surface to ensure good bonding by chipping, scabbling, grit blasting or acid etching – best to allow to dry thoroughly, however, **MASTERFLOW 628** may be applied to a damp substrate. If an anchor bolt sleeve is to be filled, be sure all water is removed. If the anchor bolt is to be left ungrouted, seal the bolt hole with felt, foam rubber or other means.

Formwork must be strong and leak proof, and should be placed within 20-25mm of base plate edge. Coat formwork with heavy grease or cover with polythene film to allow easy removal of forms. Formwork may be sealed with putty or caulking. Seal wood forms to vertical concrete surfaces by applying putty or caulk below top of concrete, then press form into place.

Moderately sized equipment should utilise a head form sloped at 45° to enhance the grout and minimise forming costs. Note: 125-150mm clearance is recommended at the area where the grout is to be placed.



The Chemical Company

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Forms should extend a minimum of 20mm higher than the bottom of the equipment being grouted.

Protect the foundation and equipment from rain or moisture.

Expansion joints will reduce the possibility of cracking. On multiple sole plate installations each sole plate may be isolated.

Mixing - MASTERFLOW 628 is formulated with a mix ratio of 5:1 by volume, Part A resin to Part B hardener. Units may

be split but it is essential to maintain the correct ratio of Part A to Part B. The mix ratio by weight is 9:1 Part A to Part B.

Transfer contents of Part B to Part A container. Mix for 5 minutes using a slow speed electric drill with a flat paddle. Avoid entrapping air. Use without delay.

Placing

Machine Bases, Crane Rails:- Clearances must be such that grout will flow without forming air pockets - provide ventholes. Grouting operations must be continuous with a minimum head of 15mm. For intricate voids gentle strapping may be required to assist flow – do not vibrate grout.

For flat bottom plates and bases, the grout should be poured from one side through to the other across the short dimension.

When grouting closed areas, start at one end of the form and fill the cavity completely as you advance toward the other end to prevent air entrapment.

Note: low foundation and ambient temperatures decrease flowability. Check frequently for leaks. Leaks do not self-seal. If not stopped they will cause voids.

Anchor Bolts, Dowels, Starter Bars:- Pump or use tremmies for bolts in situ. For bolts placed into pre-formed holes, pre-fill the hole with grout then slowly work the bolt into the grout.

For information about application, please obtain a copy of the BASF "Application Guide for MASTERFLOW Epoxy Grouts" from your local representative.

CURING

No damp curing or special curing compounds are required. Cure time will vary depending on quantity mixed and placed and ambient temperature. The larger the volume and the higher the temperature, the shorter will be the cure time. Initial set at 23°C will be in 4-6 hours.

MASTERFLOW 628 will be fully cured with maximum physical strength and chemical resistance at 7 days at 23°C. Do not install equipment before full cure has been attained or creep may occur.

Note - curing rates and strength gain are retarded at lower temperatures - curing will not occur below 5°C.

CLEANING

Clean tools, mixer and other application equipment with **Thinner No. 1**.

PACKAGING

Two-component system available in a 10 kg kit comprising: **Part A** Resin 9 kg and **Part B** Hardener 1kg.

SHELF LIFE

MASTERFLOW 628 has a shelf life of 24 months if stored unopened in original containers at moderate temperatures.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF **Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

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