



The Chemical Company

# MASTERFLOW® 622

Heavy duty epoxy resin grout

## DESCRIPTION

**Masterflow 622** is a solvent-free rapid hardening, high strength grout, based on modified epoxy resin and is designed for use as a precision, heavy duty chocking grout for engineering applications. It is supplied as a two component system consisting of epoxy resin, combined with inert fillers and the hardener, to produce a high viscosity flowable liquid grout.

## RECOMMENDED FOR

- Machinery with high dynamic loads and vibration.
- Backing of steel liners of ore crushing machinery in mines and quarries.
- In corrosive environments where chemicals, oils and solvents make cementitious grouts unsuitable.
- Production line equipment that must resume operations with minimum downtime.
- Machinery base plates, crane rails, anchor bolts, hold down bolts and heavy equipment where tensile strength greater than cementitious systems can provide are required.

**Masterflow 622** is not recommended where the temperature of the grout after mixing and placing cannot be maintained above 15°C for a period of 48 hours to achieve full cure or where incomplete cure, excessive loads and/or temperatures may induce creep; where required maximum thickness is greater than 50 mm; in this situation additional aggregate may be incorporated (refer to BASF Construction Chemicals); where upper operating temperature is in excess of 130°C; for wet substrates.

## FEATURES AND BENEFITS

- **Resistance to vibration and impact**  
Particularly applicable where cycles of compression/tension make cementitious grouts unsuitable
- **Minimum shutdown**  
High early and ultimate strengths
- **Excellent chemical resistance**  
Maximum protection against attack from mineral acids, oils, fats, fuels, and strong alkali and salt solutions and lubricating and hydraulic oils
- **High bond strength**  
Tenacious adhesion to prepared surfaces.
- **Supplied in pre-measured kits**  
Eliminates the need for complicated on-site measuring and ensured product performance

## PERFORMANCE DATA

Compressive strength development (50mm cubes).

Age	23°C
4 hours	69 MPa
6 hours	83 MPa
9 hours	95 MPa
24 hours	105 MPa

**Typical test results** (after 7 days cure at 23°C ± 2°C):

Property	Test Method	Result
Compressive Strength	ASTM D 695	120 MPa
Compressive Modulus		4.0 GPa
Tensile Strength	ASTM D 638	60 MPa
Linear Shrinkage	ASTM C 531-81	0.01%
Bond Pull-out	Concrete failed at 2.9 MPa	
Setting time @ 23°C		6 hrs

## Pot life

Pot life will vary. As a guide, the pot life of a 10 kg kit, mixed at 23°C would be approx. 30 minutes.

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.

## PROPERTIES

	Part A	Part B	Mixed
Supply Form	White	Dark blue	Blue
	Viscous	Heavy	Liquid
	Paste	Liquid	
Viscosity			30 Pa.s
Density			1690 kg/m <sup>3</sup>

## ESTIMATING DATA

**Masterflow 622** is available in a two-component kit of 10 kg which yields (when mixed) 5.9 litres.

## APPLICATION

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

**Mixing-Masterflow 622** 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 10:1 resin to hardener. Remove rim from Part B tin to ensure complete removal of contents. Transfer contents of Part B to Part A container. Mix for 3 minutes using a slow speed electric drill with a flat paddle. Avoid entrapping air. Use without delay.

## CURING

No damp curing or special curing compounds are required. Cure time will vary depending on quantity mixed and placed and ambient temperature. Initial set at 23°C will be in 4-6 hours. **Masterflow 622** 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.



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## CLEANING

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

## PACKAGING

Two-component system available in 10kg kit comprising Part A Resin (9.1 kg) + Part B Hardener (0.9 kg).

## SHELF LIFE

**Masterflow 622** 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 Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

AMf622/13/1108

## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

## 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 Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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