



The Chemical Company

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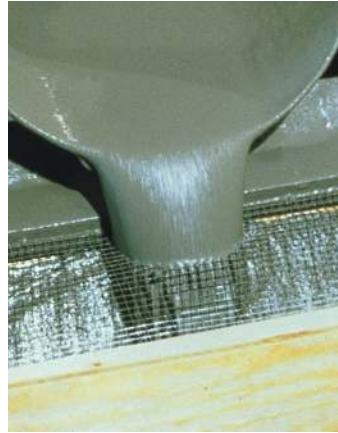


The Chemical Company

Precision Grouts

**Strength and
Performance
You Can Rely On**

High Quality Performance



BASF's range of precision grouts has a history dating back to the 1920s, when our predecessor company Master Builders Inc. (USA) produced the world's first non-shrink grout - an invention that was driven by the need to provide adequate support for increasingly larger and heavier industrial machinery.

In the years that have passed, BASF's range has been expanded to include a wide selection of precision grouts, including natural aggregate and metallic aggregate cementitious grouts, together with a range of epoxy based high-strength grouts. Whether its underground, under water, or even in aggressive temperature and/or chemical environments, BASF's range of precision grout products can deliver the quality, performance and versatility that you need to meet the specific needs of any type of application.

The Benefits of Precision Grouts



The grout provides a vital link between the equipment and/or member and the concrete foundation by providing a load bearing connection to transfer the static and dynamic loads to the foundation. The grout also provides for continued precise alignment of the equipment or member, thereby ensuring the greatest longevity and design life.

A precision grout is designed to completely support the equipment or member by maintaining contact with the base plate in both the plastic and hardened state. Cementitious grouts are specifically formulated to ensure that there is no long-term shrinkage that could affect the level of contact. Application of the grout in its fluid state not only allows the use of gravity to ensure that there is constant contact with the underside of the plate, its also helps to prevent the entrapment of air and the development of voids. Precision grouts, especially those with high

flow characteristics, must not exhibit any 'bleed' during hardening, as this can also lead to the creation of voids under the plate, which reduces the load bearing area.

The majority of projects specify a load bearing area of greater than 90%, and with BASF's range of precision grouts, this is easy to achieve. Each of BASF's precision grout products has been developed with a focus on maximising contact and minimising voids - ensuring that you get the performance and results you need.

Extensive Product Range

The result of many years of research and development, BASF's extensive range of precision grouts and speciality grouting products is truly second to none, and incorporates products to suit all manner of applications, including:

Precision Grouts

Masterflow 95 - a general purpose grout which can be placed with a consistency ranging from fluid through to damp pack.

Masterflow 830 - natural aggregate precision grout with high-flow characteristics and medium long-term strength.

Masterflow 870 - natural aggregate precision grout with high-flow characteristics and high final strength. Masterflow 870 is ideal for applications where dynamic load handling is required.

Masterflow 880 - a metal aggregate precision grout with high-flow characteristics, Masterflow 880 is ideal for situations where repetitive dynamic loads are a consideration. The product's fast strength development capabilities help to minimise delays by allowing for an early return to service.

Masterflow 622 - an epoxy grout that has been specifically formulated for thin section grouting that requires high strength development. Masterflow 622 can also be extended to allow for use in thicker sections.

Masterflow 648CP+ - high-flow epoxy grout which is ideal for thick section grouting. The product delivers the ideal combination of fast strength development and low heat generation during curing, and is ideal for use in areas with aggressive environments (including chemical and temperature).

Speciality Grouts

Masterflow 816 - aggregate free grout for post-tension cable and thin section grouting.

Masterflow 500 - a metallic aggregate grout which is ideal for under-pinning foundations.

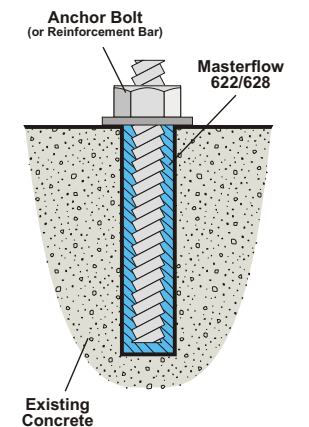
Masterflow 628 - a specialist epoxy grout which is tolerant of moist substrates and can be used for general purpose applications.

Masterflow 88UW and **1688UW** - cementitious and epoxy grouts that have been specifically developed for use in underwater applications.



Anchoring Reinforcing, Threaded Bars and Hold-Down Bolts

Grouts can also be used to anchor reinforcing and/or threaded bars into concrete, for use as hold-down systems. Understandably, it is extremely important that when using grouts in this fashion, the correct ratio of hole size to bar diameter must be used to ensure that the maximum load can be accommodated.



The table below provides a summary of testing of effective pull out strengths. The results are for testing conducted on 25MPa concrete cured for 28 days, using an epoxy grout which had been allowed to cure for seven days.

Rebar Size (mm)	Hole Size (mm)	Hole Depth (mm)	Pull Out Load (tonnes)
12	18	150	7.8
18	25	225	14
25	35	300	18.2
36	50	450	24

Note: Failure occurred in the concrete in all cases.



Typical Installation

- A - CONCRETE FOUNDATION
- B - GROUT
- C - EQUIPMENT BASE
- D - ANCHOR BOLT
- E - ANCHOR BOLT SLEEVE SEAL
- F - FORM
- G - SOLEPLATE OR RAIL
- H - SHIM OR CHOCK
- I - EXPANSION JOINT

