

MasterSeal[®] 915

High strength flowable epoxy grout

DESCRIPTION

MasterSeal 915 is a high performance, solvent free epoxy resin grouting material for pilecap waterproofing applications.

TYPICAL APPLICATIONS

Pile cap waterproofing and re-profiling.

ADVANTAGES

MasterSeal 915 is a three-component system that includes a two-part epoxy resin and carefully blended aggregate. **MasterSeal 915** provides excellent resistance to creep, high compressive strength, modulus of elasticity and excellent resistance to cracking. This product has good adhesion to steel and concrete.

MasterSeal 915 is resistant to oil, synthetic lubricants, water and most chemicals.

- Versatile application thickness
- Can be used down to 25 mm for pile cap waterproofing applications
- No priming required
- High tensile, flexural and compressive strength
- Excellent adhesion to steel and concrete
- Excellent fatigue resistance
- High resistance to dynamic loads and chemical attack
- Tolerant to damp surfaces

PACKAGING

MasterSeal 915 is supplied in 13.5 L units (28.71 kg).

PTA	2.78 kg
PTB	0.93 kg
PTC	25.0 kg

TYPICAL PROPERTIES*

Compressive strength @ 25°C ASTM C579-82, Method B, Modified 50 mm cubes (14 day cure at specified test temperature)	>90 MPa
Tensile strength - ASTM C307-83	14 MPa
Density ASTM C905-79	2115 kg/m ³
Impact strength	superior to concrete

APPLICATION GUIDELINES

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. The concrete surface must be chipped so that large aggregate is exposed to ensure removal of all laitance and weak surface material. New concrete should have a compressive strength of at least 25 MPa; greater strength is preferred. **THE CONCRETE SURFACE MUST BE CLEAN AND DRY WHEN THE GROUT IS POURED.** The concrete areas to be grouted should not be primed or sealed.

FORMING

MasterSeal 915 is fluid and requires forms. Forms are generally wood, the same as used for forming concrete. They should be of sufficient strength, anchored or braced to withstand pressure from the grout and must be liquid tight. Wrapping forms in polyethelene will ensure 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.

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

UngROUTED exposed concrete surfaces may be sealed to prevent oil penetration.

PLACING / APPLICATION

Place immediately after mixing, into the prepared area. Pour continuously into centre of pile and allow to flow. Across the surface use a steel trowel to aid in levelling of material.

Allow the grout to set prior to removal of formwork (normally after 6 hours).

CHEMICAL RESISTANCE

MasterSeal 915 resists non-oxidising mineral acids and salts, caustics, dilute oxidising acids and salts, plus some organic acids and solvents. For more specific information contact your Master Builders Solutions Representative.

CURE TIME VS. TEMPERATURE

Cure time of the grout will depend upon the temperature of the base and foundation rather than the ambient air temperature. Unless the ambient air temperature has been constant for several days the base / foundation temperature will generally be lower than air temperature. A surface thermometer and field judgement should be used to determine actual cure rates. Cured grout should have solid, almost metallic ring when struck lightly with a hammer, checking as close to the base as possible.

POUR THICKNESS

MasterSeal 915 can be used as a grout for deep pours from 50 mm to 300 mm. For greater thicknesses, please contact our technical department.

The following procedures briefly describe installation of **MasterSeal 915**.

FINISHING AND CLEANING

A smooth finish may be obtained by spraying or brushing the surface with a suitable thinner (Xylene / MEK / Acetone) approximately 1 hour after the grout is poured. Best results can be obtained by smoothing the surface several times just prior to the hardening of the grout surface. Clean tools and mixer with a suitable thinner (Xylene / MEK / Acetone).

Do not apply **MasterSeal 915** when the contact surfaces are less than 10°C. If the ambient temperature is less than 10°C, then artificial heating may be used.

WORKING TIME

The following chart is a guide for the working time of a fresh grout mix at various ambient temperatures. The working time of a **MasterSeal 915** mix begins when the hardener is added to the liquid.

50-60 min at 25°C
25-35 min at 40°C

STORAGE AND SHELF LIFE

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.

The shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions Technical Services Department.

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HEALTH AND SAFETY

MasterSeal 915 is formulated for industrial and professional use only and must be kept out of the reach of children. These products contain chemicals which may be COMBUSTIBLE and potentially HARMFUL to your health if not stored and used properly. Hazards can be significantly reduced by observing all precautions which are found on material safety data sheets, and product labels. Please read this literature carefully before using the product.

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.

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.

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

* Properties listed are based on laboratory controlled tests.

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The technical information and application advice given in this Master Builders Solutions 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

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