

MasterFlow[®] 915 RTA

High strength thixotropic epoxy bedding mortar for Rubber Expansion Joints

DESCRIPTION

MasterFlow 915 RTA is a high performance, solvent free epoxy resin based bedding mortar for use with moulded rubber segmental expansion joints.

ADVANTAGES

MasterFlow 915 RTA is a three-component system that includes a two-part epoxy resin and carefully blended aggregate.

MasterFlow 915 RTA provides excellent resistance to creep and with high early and ultimate compressive strengths

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

- 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.

TYPICAL APPLICATIONS

As a bedding mortar for segmental expansion joints where a low flow high strength material is required to accommodate high road cambers.

PACKAGING

MasterFlow 915 RTA is supplied in 13.5 L units comprising of:

Base	2.78kg
Reactor	0.93kg
Aggregate	25kg
Total pack weight	28.71kg

TYPICAL PROPERTIES*

Compressive strength @ 12 hours / 25°C	>20MPa
Compressive strength @ 12 hours / 40°C	>65MPa
Compressive strength @ 24 hours / 25°C	>50MPa
Compressive strength @ 24 hours / 40°C	>80MPa
Compressive strength @ 25°C ASTM C579-82, Method B, Modified 50mm cubes (14 day cure at specified test temperature)	>90MPa
Tensile strength - ASTM C307-83	14MPa
Density ASTM C905-79	2100kg/m ³
Impact strength	superior to concrete

CHEMICAL RESISTANCE

MasterFlow 915 RTA 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 ambient and concrete surface temperature (as per above). Unless the ambient air temperature has been constant for several days the concrete 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.

POUR THICKNESS

MasterFlow 915 RTA can be used as a bedding mortar from 30mm to 300mm (above 100mm thickness, please contact our Technical Department).

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CONCRETE PREPARATION AND SEALING

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 (CSP 10) 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 MORTAR IS PLACED.** The exposed concrete surfaces should not be primed or sealed.

MIXING

Do not split packs or alter the ratio of resin components in any way. Mix with a heavy-duty slow speed hand-held mixer and Collomix KR mixing paddle (or similar). Add the contents of the reactor container to the base component in a suitable clean mixing vessel, ensuring complete transfer of both resin components. Mix for one minute before slowly adding the aggregate and continue mixing until a soft-mortar consistency is achieved. Do not overmix as this may entrain air.

See the method statement relating directly to the use of **MasterFlow 915 RTA** for specific details.

FINISHING AND CLEAN UP

A smooth finish may be obtained by spraying or brushing the surface with a suitable solvent such as Xylene / Acetone / MEK approximately 45 minutes after the mortar is placed. Best results can be obtained by smoothing the surface several times just prior to the hardening of the grout surface. Clean tools and mixers with Xylene / Acetone / MEK. Do not apply **MasterFlow 915 RTA** when the contact surfaces are less than 10°C. If the ambient temperature is less than 10°C

then artificial space heating may be used.

WORKING TIME

The following chart is a guide for the working time of the fresh epoxy bedding mortar mix at various ambient temperatures. The working time of a **MasterFlow 915 RTA** mix begins when the hardener is added to the liquid.

50-60 min at 25°C
25-35 min at 40°C

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 Master Builders Solutions Technical Services Department.

HEALTH AND SAFETY

MasterFlow 915 RTA 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.

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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.

* Properties listed are based on laboratory controlled tests.

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STATEMENT OF RESPONSIBILITY

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

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

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