

MasterLife[®] SRA 70

Expanding plasticising admixture for cement and grout

DESCRIPTION

MasterLife SRA 70 is an expansion system which compensates for plastic shrinkage and settlement in cementitious grouts. Supplied in powder form, **MasterLife SRA 70** produces controlled expansion in cement grouts and maintains high water retention. It contains a water-reducing agent which increases the workability of the mix with a reduced water content, making a stronger grout. Full expansion is achieved before initial setting occurs resulting in a high degree of interfacial contact.

APPLICATIONS

For bedding, jointing, duct grouting and void filling applications where the following characteristics are beneficial:

- A cement plasticising and water reducing agent to improve the free-flowing properties of the grout at low water/cement ratios.
- For post tensioning of cables
- An expanding agent, that increases the volume of the grout which in turn eliminates shrinkage and settlement.
- A catalyst to control the rate of expansion and to ensure full expansion of the grout.

(For precision grouting and load bearing operations use **MasterFlow** grouts.)

PACKAGING

MasterLife SRA 70 is available in 20kg bags.

TYPICAL PROPERTIES*

Color:	Brown/grey powder
Chloride content:	Nil to BS 5075 1982
Nitrate content:	Nil
Freezing point:	n/a
Flash point:	None
Dosage:	0.5% based on weight of cement (For 1:1 sand cement mix)

EXPANDING PROPERTIES

The expansion of grouts containing **MasterLife SRA 70** is sufficient to overcome normal settlement without producing undue pressure against the sides of the duct. The grout therefore forms a firm and uniform bond to the concrete and to the steel along the length of the tendon, and at the same time provides good protection for the

cable. The expansion obtained by the use of **MasterLife SRA 70** reaches a maximum within 1 - 2½ hours of mixing under average temperature conditions. After this period no settlement occurs, and the grout retains its maximum expansion. **MasterLife SRA 70** produces a maximum expansion of 2% in a 1:1 sand/cement grout.

PLASTICISING PROPERTIES

MasterLife SRA 70 imparts fluidity to grout, even at reduced water/cement ratios, and because of the water reducing action, higher compressive strengths are obtained.

7 day **20-40 N/mm2 (sand/cement grout 1:1)**

DIRECTIONS FOR USE

First add 80% water (chilled water of 5-7 °C) to the mixer and then Portland cement and sand mixture and mix thoroughly. Then add **MasterLife SRA 70** and continue mixing further for 2 minutes with gradual addition of remaining water to get lump free homogeneous fluid material.

The type of mixing equipment generally used in preparing cement grouts is that which will produce a high local turbulence thus ensuring an efficient breakdown and dispersion of the cement.

Grouts for ducts of post-tensioned concrete members should be passed through a 1.18mm BS sieve before reaching the pump, and the pump should be capable of giving a continuous flow of grout to the injection equipment.

DOSAGE

MasterLife SRA 70 is used at the rate 0.5% based on the weight of cement in 1:1 sand cement grout. In winter when temperature falls below 5°C, dosage of **MasterLife SRA 70** and water temperature need to adjusted accordingly.

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TYPICAL EXAMPLE

Properties of cement/sand mix containing 0.5% of MasterLife SRA 70

Type of cement		OPC ASTM C-150 Type 1
water % by weight of cement		43.0
Flow-Cone Test EN 445	initial 30 min	24 secs 29 Secs
Bleed water EN 445 / 447	by volume	0-0.5%
Expansion at 3 hours		0-2%

SPECIFICATION CLAUSE:

MasterLife SRA 70, manufactured by Master Builders Solutions, or similar approved, is to be incorporated in grouts where indicated.

The MasterLife SRA 70 shall be added at the rate of 500gm per 100kg Portland cement and used strictly in accordance with the manufacturer's recommendations.

SAFETY PRECAUTIONS:

As with all chemical products, care should be taken during use and storage to avoid contact with the eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

STORAGE:

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction. 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's Technical Services Department. Shelf life is 6 month when stored as above.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Master Builders Solutions representative.

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All Master Builders Solutions Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and Master Builders Solutions ESHQ recommendations.

* Properties listed are based on laboratory controlled tests.

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CONTACT

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Disclaimer:

In view of widely varying site conditions and fields of application of our products, this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with Master Builders Solutions and possible resulting damages are in the sole responsibility of the customer.

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