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BUILDING CHEMICALS SPECIALISTS

UNIPLAST RM11

Long Term Retarding Mortar Admixture

USES

- To produce in conjunction with **UNIPLAST AM90** air entrainer, a pre-mixed retarded mortar with a usable life of up to **48 hours**.
- To prolong the working life of pre-mixed renders or screeds.
- To be used in mortars containing lime or sands containing more than 10% of sit as measured by the Field Setting Test

ADVANTAGES

- Controlled retardation provides extended working life.
- Allows pre-mixing of mortar in large volumes for gradual use with a usable life of up to **48 hours**, increasing quality and consistency of the mortar.
- Usable with a wide range of sands, including those containing large quantities of fine material that may otherwise give workability retention problems.
- Allows easier use of locally available materials.
- In combination with **UNIPLAST AM90** air-entrainer, provides a combination of air entrainment and reduced water content in the mix, decreasing water absorption and enhancing durability.

STANDARD COMPLIANCE

UNIPLAST RM11 complies with **CYS EN934-3:2009+A1:2012**
Table 4 – *General requirements* and
Table 3 – ***Additional requirements for admixtures for long term retarded, ready to use mortar at equal consistence***.
UNIPLAST RM11 is certified by **CERTIF** (Certification Organization) with the Certificate of the **Factory Production Control** with Certificate Number **1328 - CPR - 0063** and bears **CE marking.**

PROPERTIES

Appearance:	**Liquid**
Colour:	**Red**
Specific Gravity:	**1,220± 0,01** at 20ºC
pH:	**9,25 ± 1,0** at 20ºC
Chloride Content:	**Chloride Free**

PRODUCT DESCRIPTION

UNIPLAST RM11 plasticising and retarding admixture based on a blend of organic retarders which is easily dispersed in water.

UNIPLAST RM11 enhances the dispersion of cement particles in a mortar mix, exposing a greater surface area of cement to the mixing water and enabling the water content of the mortar to perform more effectively.

UNIPLAST RM11 delays the initial hydration of cement.
Careful selection of dosage and use in combination with **Uniplast AM90** air entraining agent allows extension of the working life of a pre-mixed mortar as suitable for the laying of bricks and blocks.

DOSAGE

Trials should be carried out with the proposed mortar mix in order to determine the optimum dosage of **UNIPLAST RM11**. Typical dosage levels for **UNIPLAST RM11** for use in retarded mortars lie in the range of **0.30 to 1.60 liters / 100 kg of cement.** The actual level will depend on the type of sands used and the working life required.

Where lime is used in the mortar mix the admixture should be dosed on the total amount of lime and cement in the mix.

Dosages outside the typical ranges quoted below may be used if necessary and suitable to meet particular mix requirements, provided that adequate supervision is available.

DISPENSING

UNIPLAST RM11 should be measured using a suitable dispenser. The admixture should be added to the mortar with the mixing water to obtain the best results. If it is to be used in conjunction with **UNIPLAST AM90**, it must be added to the mix via a separate dispenser.

An overdose of double the intended amount of **UNIPLAST RM11** will result in increased retardation as compared to that normally obtained at the intended dosage. This may cause problems of instability of mortared units. Extended retardation of renders and screeds will allow dessication of the screed or mortar to occur before the material hardens, leading to dusting and deterioration of the surface and possible depending from the substrate.

An overdose will greatly increase the plasticising effect of the admixture. The degree of these effects will depend on the particular mix design and overdose level.

CURING

Good curing practice should be always maintained particularly at high temperatures and in situations where an overdose has occurred. Curing is particularly important where retarded screeds or renders are used.

COMPARATIVE RESULTS between control (only water) & Test with UNIPLAST *RM11&AM90* at equal consistence

	Dosage RM11+AM90 (Litres)	Cement Content (Kg/m³)	Reduce Water %	AIR CONTENT AFTER standard mixing (%)	AIR CONTENT AFTER extended mixing (%)	Compress. Strength in 28 days (N/mm²)
Control (only water)	**-**	**275**	**-**	**-**	**-**	**8,2**
Test (with RM11+ AM90)	**3,75 1,25**	**275**	**17%**	**16%**	**19%**	**9,4**

PACKAGING - STORAGE

UNIPLAST RM11 is delivered in **210** Litres metal drums, **1000** Litres plastic containers.

UNIPLAST RM11 has a minimum shelf life of 12 months provided is stored between **2º C** and **40º C**. The material freezes at **-4 º C**. It is necessary to protect material from direct sunlight and frost.

PRECAUTIONS

UNIPLAST RM11 is water based and is non-flammable.

UNIPLAST RM11 is milky alkaline and should not be swallowed. Contact with skin and eyes should be avoided. Always wear suitable protective gloves and eye/face protection. In the event that it comes in contact with the skin rinse thoroughly with plenty of water. In case of contact with eyes rinse immediately with water and seek medical attention immediately.

For more information on secure management and storage please request the **SAFETY DATA SHEET**.