

BUILDING CHEMICALS **SPECIALISTS**

UNIPLAST C09R

Set Retarding Concrete Admixture

FRINICS CHEMICALS LTD
P.O. Box 12593, 2251 Latsia,
12, 28th October Street. Dhali Industrial Area, 2540
NICOSIA – CYPRUS
Tel: +357 22480653, +357 99354598
Fax: +357 22484729
Email: menikeas@frinics-chemicals.com.cy
Website: <http://frinics-chemicals.com.cy>

USES

- To improve set retardation of concrete in high temperatures.
- To extend working time.
- To help maintain the workability of ready mixed concrete deliveries in hot weather.
- To increase initial and final setting time.

ADVANTAGES

- Chloride free, safe to be used in reinforced and prestressed concrete.
- Minimised transportation delay problems maintain placeability and reduces the risk of pump blockage.
- Increased workability facilitates placing and compaction.
- Set retardation controls stiffening time of concrete in hot weather.

STANDARD COMPLIANCE

UNIPLAST C09R complies with **CYS EN934-2:2009 +A1:2012 Table 8 - Specific requirements for set retarding admixtures (at equal consistence).**

UNIPLAST C09R 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: **Brown**
Specific Gravity: **1,165± 0,01** at 20°C
pH: **6,75 ± 1,0** at 20°C
Chloride Content: **Chloride Free**

PRODUCT DESCRIPTION

UNIPLAST C09R is a blend of glucosides and other inorganic and organic chemicals which is easily dispersed in water.

UNIPLAST C09R entrains less **than 2%** of additional air to concrete at normal dosages.

UNIPLAST C09R disperses the fine particles of cement in the concrete mix, enabling the water content to perform more effectively thus improving concrete consistency and increased workability.

The initial hydration of the cement is delayed, resulting in a delay in the setting time of the concrete with no negative effect on subsequent stiffening and strength gain.

DOSAGE

Trials should be carried out with the proposed concrete mix in order to determine the optimum dosage of **UNIPLAST C09R**.

Suggested starting point dosages are **0.05 to 0.10 litres / 50 kg of cement**. Higher dosages may be used to meet particular mix requirements.

UNIPLAST C09R is compatible with all types of cement which are produced in Cyprus and performs extremely well with **microsilica**. It can also be combined with all other Concrete Admixtures manufactured by our company.

The level of retardation obtained may be varied by altering the dosage of UNIPLAST C09R used, which will also alter the lever of water reduction obtained.

Retardation is also affected by factors other than the admixture, depending on the mix design and conditions involved. High temperatures will require increased dosages.

DISPENSING

UNIPLAST C09R is measured using a suitable dispenser. To obtain the best results it should always be added to the concrete mix dissolved in the water.

An overdose of double the intended amount of UNIPLAST C09R will result in retardation. Provided that adequate curing is maintained, the final strengths of the concrete will be achieved.

CURING

Good curing will always lead to low permeability concrete and good curing practice should be always maintained especially at high temperatures and when increased dosages of UNIPLAST C09R are used. Curing membrane, water spray or wet hessian should always be used.

COMPARATIVE RESULTS between control (only water) & Test with UNIPLAST C09R at equal consistence

	Dosage C09R (Litres)	Cement Content (Kg/m ³)	W/C ratio	Reduce Water %	Air Content (%)	Slump (mm)	Compress. Strength in 28 days (N/mm ²)
Control (only water)	-	350	0,62	-	1,9	120	30,0
Test (with C09R)	1,5	350	0,60	3%	2,1	120	33,0

PACKAGING - STORAGE

UNIPLAST C09R is delivered in 210 Litres metal drums, 1000 Litres plastic containers.

UNIPLAST C09R has a minimum shelf life of 12 months provided is stored between 2° C and 40° C. The material freezes at -4° C. It is necessary to protect material from direct sunlight and frost.

PRECAUTIONS

UNIPLAST C09R is water based and is non-flammable.

UNIPLAST C09R should not be swallowed. Contact with skin and eyes should be avoided. 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.



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