

BUILDING CHEMICALS SPECIALISTS

UNIPLAST IW21

Integral «Waterproofing» Concrete Admixture (Water Resisting)

USES

To waterproof concrete as well as mortar, structural and precast concrete, renderings, brickwork mortar and screeds. Ideal for swimming pools, sea walls, basements and tunnels.

ADVANTAGES

- Chloride free, safe to be used in reinforced and prestressed or marine concrete.
- Reduces the added water thus increasing density with reduced porosity resulting in substantially improved water penetration resistance.
- Increases compressive strengths at all ages due to water reducing properties.

STANDARD COMPLIANCE

UNIPLAST IW21 complies with **CYS EN934-2:2009 +A1:2012 Table 9** - Specific requirements for water resisting admixtures (at equal consistence or equal w/c ratio.)

UNIPLAST IW21 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: **1,10± 0,01** at 20°C
pH: **7,50 ± 1,0**
Chloride Content: **Chloride Free**

PRODUCT DESCRIPTION

UNIPLAST IW21 is a formulated blend of inorganic plasticisers and waterproofing chemicals which is easily dispersed in water.

UNIPLAST IW21 entrains less than 2% of additional air to concrete at normal dosages.

UNIPLAST IW21 when added to concrete mix, acts as a powerful dispersing agent enabling the water content to perform more efficiently, by causing cement particles, which tend to agglomerate, to disperse and expose a larger surface area. The hydrated reaction proceeds more efficiently with less water. The use of **Uniplast IW21** promotes water reductions giving a denser concrete of significantly reduced permeability.

The concrete shall be 'waterproofed' with **UNIPLAST IW21** as supplied by the manufacturers and used strictly in accordance with their instructions.

DOSAGE

Trials should be carried out with the proposed concrete mix in order to determine the optimum dosage of **UNIPLAST IW21**.

UNIPLAST IW21 for 'waterproofing' mass and structural concrete is added at the rate of **1.25 to 1.50 litres/m³** concrete. Care must be taken to ensure good grading of aggregates. Minimum cement content of **300 kg/ m³** is recommended.

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UNIPLAST IW21 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.

DISPENSING

UNIPLAST IW21 should be measured using a suitable dispenser. The admixture is then added to the concrete with the mixing water to obtain the best results.

An overdose of double the recommended of UNIPLAST IW21 will result in retardation of the initial set of the concrete. The ultimate strength of the concrete will not be impaired and will generally be increased. A considerable increase in workability will be achieved.

CURING

Good curing practice should be always maintained particularly at high temperatures and in situations where an overdose has occurred. Curing membrane, water spray or wet hessian should always be used.

COMPARATIVE RESULTS between control (only water) & Test with UNIPLAST IW21 at equal consistence

	Dosage IW21 (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 IW21)	1,5	350	0,60	2%	2,0	120	33,0

PACKAGING - STORAGE

UNIPLAST IW21 is delivered in **210** Litres metal drums, **1000** Litres plastic containers.

UNIPLAST IW21 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 IW21 is water based and is non-flammable.

UNIPLAST IW21 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**.



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