



Rev 0  
01/22



# UNICUM 40

Polymer-based superplasticizer.  
Polycarboxylic of the latest generation.



## DESCRIPTION

Superplasticizer based on the latest generation of polycarboxylic polymers specifically for prefabrication, characterized by a very high reduction in w/c ratio and development of very high resistance to short and long curing.

## FEATURES

Chloride-free, it can be used in concretes even with strong reinforcement that are made at low temperatures. UNICUM 40 makes it possible to obtain concretes with a very low w/c ratio, homogeneous and without bleeding, which have superior final performance. This enables the making of rheoplastic and SCC (Self Compacting Concrete) rheodynamic concretes. It accelerates cement hydration and at the same time has a hyperfluidizing action on concrete, allowing an important reduction in the w/c ratio. UNICUM 40 therefore allows for high strengths at short curing times, even at low temperatures, self-levelling, high-strength concrete for precast and prestressed concrete can be obtained. The w/c ratio, reduced by more than 40 percent, makes it possible to obtain waterproof concretes, without segregation and bleeding, durable to all the exposure classes required by UNI EN 206, and with superior adhesion to reinforcing bars. The strongly accelerating effect and the development of high strength at short curing times reduces or allows for the elimination of steam treatment time. The use of UNICUM 40 compared to a non-additive concrete makes it possible to obtain: - At the same workability reduction in the w/c ratio more workable concrete; - Easier paving and immediate response of vibratory operations; - Reduced bleeding and better surface finishes; - Reductions in setting times depending on external and concrete temperatures; - The coaction of the fluidifying capacity of the admixture and the higher hydration rate of the cement; - Rapid curing allows the reduction of the time of stripping.

## APPLICATIONS

It is used in all types of precast and structural concrete where a low w/c ratio is required.

## PHYSICAL CHARACTERISTICS

Physical state	liquid
Color	ivory
Ph	4,0 ± 1
Density (at 20°C)	1,03 g/dm <sup>3</sup> ± 0,02
Chlorides	none
Freezing point	- 5 °C

## METHODS OF USE

UNICUM 40 develops maximum effectiveness in terms of water reduction and concrete homogenization if added after the other components of the mix have been loaded and well mixed, and at least 80 percent of the mixing water has been introduced.



## DOSAGE

UNICUM 40 is normally dosed between 0.6-1.2 % w/w referred to cement weight. For higher dosages for use in particular applications, contact our technicians. Recommended dosage: 1% on cement weight.

## LEGAL NOTICES

The information contained in this technical data sheet, while representing the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests under the usual conditions of use and exercise. We therefore decline all responsibility for improper use of the product.

