



PENTAMIX N

Additive for anti-shrinkage fluid grouts used in repair works

Technical Data Sheet, June 2015

DESCRIPTION	Pentamix N is an additive in powder form to add to cement and sand in the preparation of highly resistant, shrinkage-free, self-levelling mortars.
FEATURES	Thanks to its particular composition, Pentamix N gives fresh mortars excellent fluidity and easiness of application, as well as excellent adhesiveness in the wet state to the supports and perfect filling of all the holes. In the hardened state, mortars containing it are highly resistant, waterproof and hydraulic shrinkage-free. That allows solid, effective and lasting repairs.
USE	Pentamix N is used in the preparation of cement mixtures containing aggregates with grain size up to 2.5 mm for the fixing of piles and pillars in their seat, the repair of floors and all the operations requiring quickness and precision to be carried out on horizontal surfaces, hollows or moulded structures. It is advisable to use clean sand, preferably siliceous or crystalline-calcareous, with well-assorted granulometry. The suggested ratio between sand and cement (preferably Portland cement 42.5 R) is 2:1. In the preparation of mortars, the quantity of water must be as low as possible, compatibly with the consistency required by the specific application. It is advisable to apply mortars containing Pentamix N on wet, but not water-drenched supports. That allows a better hydration of the cement binder and a better adhesion to the support. When reparation works have to be carried out on reinforced concrete where rods are oxidized and degraded, it is indispensable to clean and protect them against subsequent oxidation before applying the mortar for the repair work. Besides, if the structure under repair is subject to vibrations or volumetric fluctuations due to frequent and considerable temperature ranges, it is advisable to introduce polypropylene fibres not longer than 12 mm into the mortar and to apply cement slurry of a semi-elastic type between the support and the mortar to improve the stability of the repairs in time. Mortars containing Pentamix N and produced following our directions allow obtaining perfectly smooth surfaces that can be later treated with all types of finishing.

	Data	Method
TECHNICAL DATA		
State:	Powder	Visual
Colour:	Beige	Visual
Bulk Density:	0.550 ± 0.100 kg/dm ³	IST. 10.07
Granulometry:	Min. 90% < 0.300mm	IST. 10.09

Humidity :	Max. 4.0%	IST. 10.04
Water solubility:	Partially soluble	IST. 10.21

DOSAGE	The recommended dosage of Pentamix N is 4-5% of the total weight of the dry mixture. Different dosages can be used depending on the expected results after carrying out preliminary tests
STORAGE AND VALIDITY	Pentamix N has 12-months validity beginning with delivery, if it is stored in a dry place and in the original bags kept perfectly closed. Should moisture be absorbed by the product, this does not affect its efficaciousness, but it makes its dosage difficult and the dispersion in the finished mixture not homogeneous.
PRECAUTIONS	It is therefore advisable to close bags carefully after each collection. Pentamix N is neither irritating nor harmful to skin. It can cause red eyes and an irritation of the first part of the respiratory tract, because of the alkalinity of its components. It is therefore advisable to use dust masks and protective glasses while handling it. It can be easily removed from any surface with water and soap. In case of accidental loss it must be picked up in the dry state and discharged in an authorised waste dump. Keep out of children's reach. Do not disperse the product and the bag in the environment. Refer to the relevant safety sheet for further information about safety.
PACKAGING	25 kgs paper bags

The specifications stated in this report have been got either through standardized tests and rules or their modifications following Pentachem systems. The methods applied can be requested to our technical service.

All the data stated in this technical sheet are based on our knowledge and experience. However, before using the item differently from indicated, it is advisable to carry out preventive tests. In any case, PENTACHEM does not assume any responsibility for any damage or defect caused by the use of our products, as the employment conditions are not under our control. We also inform that our technical service is at our customers' disposal for any information concerning the correct employment of our products.