

# PENTAFLW PC 5

Universal superplasticizing agent for ready-to-use mixtures

Technical Data Sheet, September 2016

## DESCRIPTION

**Pentaflow PC 5** is a superplasticizing agent in powder form based on polycarboxylate dispersants. Thanks to the high dispersing capacity of its components, it allows improving the working time of concrete, micro concretes, and mortars, as well as their waterproofness, their resistance, and their durability.

**Pentaflow PC 5** is also successfully used in the dispersion of fine and extra fine powders and micro-sized products in the preparation of pastes and in aqueous dispersion systems.

## FEATURES

**Pentaflow PC 5** improves the workability and the laying of the mixture, by making concrete and mortars more plastic and workable, more cohesive, and easier to be sprayed.

Thanks to the reduction of the W/C ratio, **Pentaflow PC 5** increases the mechanical strengths of the product to the various degrees of seasoning.

Concretes and self-levelling mortars obtained with the adding of **Pentaflow PC 5** do not show any segregation or bleeding phenomena.

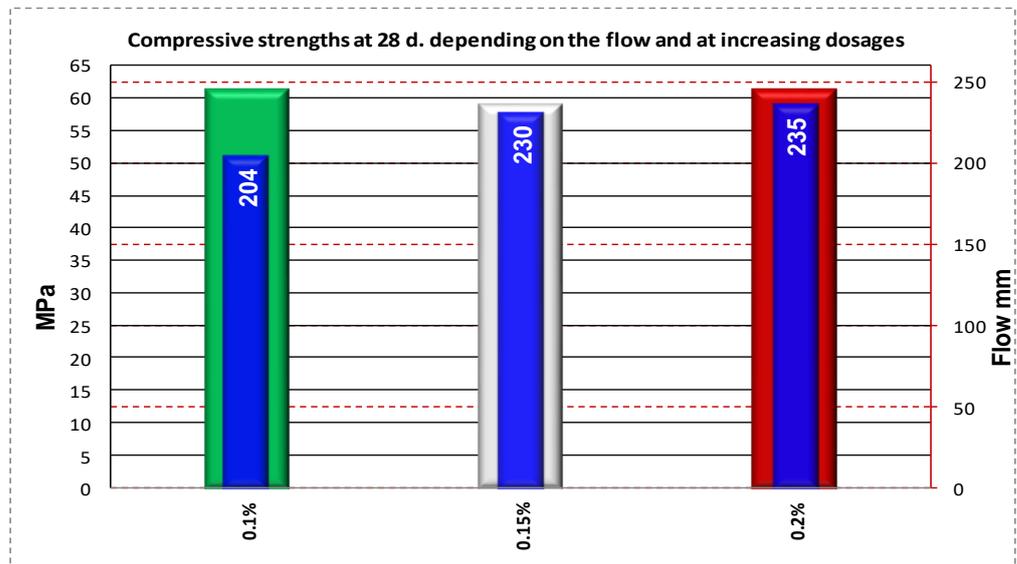
The reduction of the W/C ratio lowers the porosity and capillarity of the mixture. Thus, concretes have a better waterproofness and a better durability, as well as a more beautiful appearance and lower shrinkage.

**Pentaflow PC 5**, when used in the suggested dosages, does not affect the setting time, while it modifies the consistency of the mixture from wet to fluid or superfluid despite the low W/C ratios.

## USE

Thanks to its features, **Pentaflow PC 5** allows to obtain high quality concretes both in the ready mix industry and in the production of ready mix concretes. It is also used with success in the preparation of self-compacting concretes with high resistances and low hydraulic shrinkage in combination with Pentamix EX 3.

It is particularly suitable for cement mixtures and dry premixed micro concretes.



	Data	Method	
TECHNICAL DATA	Chemical composition	Polycarboxylate polymer	
	State:	Powder	Visual
	Colour:	Beige	Visual
	Bulk density:	0.600 ± 0.100 kg/dm <sup>3</sup>	IST. 10.07
	Granulometry:	Min. 80 % < 0.300 mm	IST. 10.09
	Humidity:	Max. 4 %	IST. 10.04
	Water solubility:	Min. 96%	IST. 10.21
	Temperature of use:	> 0°C	
	Chlorine content:	Max. 0.05%	

**DOSAGE**

**In premixed dry mortars** the recommended range of dosage is 0.1 - 1.0% on the weight of the mixture, depending on the desired degree of fluidization.

**In concretes and wet mortars** the dosage of **Pentaflow PC 5** is normally 0.2 - 0.6% on the weight of cement.

**Pentaflow PC 5** should be preferably added to the mixture immediately after adding the first mixing water in order to modify the consistency at will.

**Different dosages can be used depending on the needs only after experimental determination.**

**STORAGE AND VALIDITY**

If it is stored in a dry place and in the original bags kept perfectly closed, **Pentaflow PC 5** has a 12 months validity starting from the date on the delivery note.

Should moisture be absorbed by the product, this does not affect its efficaciousness, but it makes its dosage difficult and the distribution in the finished mixture not homogeneous.

It is therefore advisable to close the bags carefully after each collection.

**PRECAUTIONS**

**Pentaflow PC 5** is harmless in contact with skin.

It is easily removable from any surface with water and soap.

Inhalation can cause an irritation of the first part of the respiratory tract. This trouble disappears immediately when the handling of the product stops. It is therefore advisable to use dust masks and to avoid its dispersion in the environment.

In case of accidental loss, it must be picked up in the dry state and discharged in an authorised waste dump.

**PACKAGING**

25 kg 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.