



# PENTATARD AT

## Retarder for cement-based and gypsum-based mixtures

Technical Data Sheet September 2015

**DESCRIPTION** **Pentatard AT** is a natural tartaric acid in powder form having a retarding effect on mixtures made with gypsum and hydrated lime or made with hydraulic binders.

**FEATURES** **Pentatard AT** only acts in hydrated lime alkali systems. It stands thermal action up to 200°C without undergoing any deep alteration so that efficaciousness is not affected; it can be added to gypsum immediately after burning or when gypsum is still hot.

A fundamental characteristic of **Pentatard AT** is that it delays the setting time of gypsum in proportion to the dosage, even from the very first small additions. That allows excellent flexibility in the control of the expected setting times. Moreover, the wide interval between the initial and the final set, obtainable with **Pentatard AT**, reduces the internal tensions during the final set, so preventing the possible cracks. It also facilitates the scraping of the surplus material while preventing tears.

It also allows to adjust the initial workability of Portland cement mixtures and Portland/ alumina cement mixtures by acting on the setting time.

**USE** Besides being used as a specific retarder for plasters, **Pentatard AT** is also a corrector of the using times of various gypsum and hydrated lime-based smooth finishes and other kinds of mixtures. In that case and in consideration of the low dosages of **Pentatard AT**, it is advisable to lengthen the standard mixing times of 4 minutes at least.

It is widely used in cement-based binary and ternary mixtures as a setting time modifier.

	Dati	Metodo
<b>Composition:</b>	Natural tartaric acid 94,5±0,5% (anti caking 5±0,5%)	
<b>DATI TECNICI</b> <b>Form:</b>	Powder	Visivo
<b>Colour:</b>	White	Visivo
<b>Apparent density:</b>	0,575 ± 0,075 kg/dm <sup>3</sup>	IST. 10.07
<b>Granulometry:</b>	min. 75% < 0,063 mm max. 5% > 0,18 mm	IST. 10.09
<b>Humidity:</b>	max. 4 %	IST. 10.04
<b>Water solubility:</b>	min. 94%	IST. 10.21

<b>DOSAGE</b>	The range of dosage of <b>Pentatard AT</b> is included between 0,01% and 0,2% on the weight of the binder contained in the mixture, depending on the expected time lag. Different dosages can be used depending on the reactivity of the used binder, after carrying out preliminary tests.
<b>STORAGE AND VALIDITY</b>	<b>Pentatard AT</b> has 12-month 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 distribution in the finished mixture not homogeneous. It is therefore advisable to close bags carefully after each collection.
<b>PRECAUTIONS</b>	<b>Pentatard AT</b> can cause a slight irritation by contact with skin. It is easily removable from any surface with water, it is advisable to wear protective gloves. Inhalation can cause a slight irritation of the first part of the respiratory tract; it is therefore advisable to use a dust mask. In case of accidental loss it must be picked up in the dry state and discharged in an authorized waste dump. Dry-clean the surfaces avoiding the use of water. In case of pollution of water bearing stratum, please inform the competent authorities. Do not disperse the product and the bags in the environment. For further information see Safety Data Sheets.
<b>PACKAGING</b>	25-kilo 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.

Pentachem Srl–Via Galvani,3–Zona Ind. Casarola–47832-S.Clemente (RN) Italy Tel.-39.2541.988026–Fax +39.0541.989557–[info@pentachem.it](mailto:info@pentachem.it)–[pentachem@pentachem.it](mailto:pentachem@pentachem.it)



COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =