

LEGARAPID 3H

Setting and hardening accelerator for Portland cement-based mixtures

Technical Data Sheet, March 2026

DESCRIPTION	Legarapid 3H is an accelerating agent in powder form, consisting of a mixture of organic and inorganic salts which allows to modify the setting and the hardening time of all the mixtures containing Portland and/or aluminous cement.	
FEATURES	Legarapid 3H acts on the setting and hardening times of cement-based systems by accelerating the hydration reactions of the main phases of clinker, particularly tricalcium aluminate (C_3A) and tricalcium silicate (C_3S). This process allows rapid structuring of the cement matrix and a significant reduction in setting time. According to the dosage and to the composition of the mixture, the setting time can be adjusted from a few minutes to about an hour. The modified system is characterized by a rapid increase in mechanical strength during the early curing stages, with indicative values of up to approximately 4.50 MPa as early as 1 hour after mixing, without any compromise to the final mechanical strength. The open time of the mixtures can be adjusted as needed by adding specific powdered retarder Pentatard AC, allowing greater flexibility in application depending on working conditions and site requirements.	
USE	Legarapid 3H is suggested in all cement-based systems, where a controlled reduction in setting and curing times is required. It is particularly suitable for applications requiring rapid commissioning, such as repair mortars, Class F cement-based adhesives, and fast-setting self-leveling mortars, where it allows high performance even at short seasoning. It can also be used for rapid bonding, anchoring, and sealing, as well as for applications in adverse weather conditions, such as low temperatures, ensuring rapid application without compromising the system's final mechanical performance.	
TECHNICAL DATA	Data	Method
	State:	Powder Visual
	Colour:	White Visual
	Bulk density:	$0.850 \pm 0.100 \text{ g/cm}^3$ IST. 10.07
	Particle size:	Min. 90% < 0.180 mm IST. 10.09
	Humidity:	Max 3.00% IST. 10.04
DOSAGE	The dosage range for Legarapid 3H is typically between 1% and 5% of the mortar weight, depending on the desired result. Different dosages may be used depending on specific requirements, following experimental determination.	
STORAGE AND VALIDITY	When stored in a cool, dry place in the original, tightly sealed bags, the product has a shelf life of 12 months from the date on the shipping document. We advise you to carefully reseal the bags after each use.	
PRECAUTIONS	Before use, please read the corresponding safety data sheet.	
PACKAGING	25-kgs paper bags	

All the data stated in this technical sheet is based on the best of our knowledge and experience. 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.