

## Betol<sup>®</sup> H 31

## Powder formulated hardener for soluble silicate based binders

Chemical description	Betol H 31 is an inorganic, powder formulated hardener based on modified aluminosilicate, developed to be used in low ratio (SiO <sub>2</sub> to Alkalioxide) soluble silicate based systems.
Mode of action	Through thermal and alkaline activation, Betol H 31 performs the hardening of alkali silicate based systems. Due to an increasing ratio and due to the integration of released multivalent metal ions into the generated silicate network, temperature resistant and water-insoluble compounds can be achieved.
Specification (average values)	Powder Density:approx. $0,9 \text{ g/cm}^3$ 059*)pH (1 % in water):not applicable008*)Solubility in H2O:insolubleAppearance:white powder
	*) Internal method code – description available on request
Properties	<ul> <li>good hardening properties in combination with low ratio soluble silicates</li> <li>resulting compounds with high water and water vapour resistance (after thermal activation)</li> <li>inorganic product</li> <li>eco-compatible</li> <li>VOC-free</li> </ul>
Application	Betol H 31 is used as a hardener for low ratio soluble silicate based formulations, e.g. for the production of insulation boards, moulded parts, bricks, artificial stones, fire protection systems, Mixtures of 2 to 5 parts alkali silicate in combination with 1 part of Betol H 31 show advantageous properties.
Note	The hardening requires at least 80°C and will preferably take place at 200°C for approx. 10-20 minutes. Thereby, maximum water resistance can be achieved.
Storage	Betol H 31 has to be protected from humidity. Storage stability in closed receptacles under dry conditions at least 6 months. Open receptacles should be used up soon.
Labelling / Safety	Please see safety data sheet.
Packaging	25 kg PE-bags
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