

## ALFRIMAL 104 HS

### Product Properties:

More and more products on the market have to be safe in case of fire enabling people to leave the area before an initial fire propagates. **ALFRIMAL 104 HS** is a new aluminium hydroxide quality, which is especially suitable as flame retarding filler for plastics, rubber articles and coatings. In contrast to conventional **ALFRIMAL** products, the surface of **ALFRIMAL 104 HS** is water-repellent, to apply this material in a wide spectrum of organic-based compounds, where hydrophobic interactions are possible.

## WATER BOOSTER AT FIRE IGNITION

### Key Benefits at a glance:

- Water-repellent ATH
- Finely milled
- Hydrophobic interactions with matrix
- Acts as flame retardant (HFFR)
- Improved rheology behavior
- Narrow decomposition temperature gap
- Synergist ATH for other FRs
- Broaden application field



Picture: liam-burnett-blue-qwEUsg7Ubl-unsplash-1

2020-05-06/Version 2/OK

### *Alpha Calcit Füllstoff Gesellschaft mbH & Co. KG*

D-50971 Köln Postfach 50 11 06  
D-50997 Köln Otto-Hahn-Str. 9-11

Telefon: +49 2236 8914-0  
Telefax: +49 2236 40644

e-mail [info@alpha-calcit.de](mailto:info@alpha-calcit.de)  
Internet [www.alpha-calcit.de](http://www.alpha-calcit.de)



Die in unseren Informationen und Druckschriften angegebenen Werte sind Durchschnittswerte ohne Rechtsverbindlichkeit

The data indicated on our data sheets and printed matters represent average values and are not legally binding.

## ALFRIMAL 104 HS

### Introduction:

Keeping the plastics or rubber cushion is the key driver to develop flame retardants neither disturbing the mixing and processing nor the color, surface or grip, but which act as fire extinguisher immediately in case of ignition. Due to the high specific surface of 5 m<sup>2</sup>/g and a precise top cut at 20 µm **ALFRIMAL 104 HS** is a new benchmark on the market of fine particle-sized ATH grades. Being water-repellent, the product is suitable for all kind of applications, in which other aluminium hydroxide fillers cause problems due to their hydrophilic surface, e.g. special cable compounds and sensitive systems, where hydrophobic interactions are necessary.

### Chemical and Physical Data:

Composition:	Fine particle-sized aluminium hydroxide
Surface:	Water-repellent
Color:	White
Form:	Fine powder
Average particle size:	5 µm
Sieve Residue > 20 µm:	0,1 %
Specific surface BET:	5 m <sup>2</sup> /g
Bulk Density:	600 kg/m <sup>3</sup>

### Application examples:

#### **Cables:**

High quality bedding compounds  
Special sheathing compounds  
Water booster in HFFR compounds

#### **Rubber:**

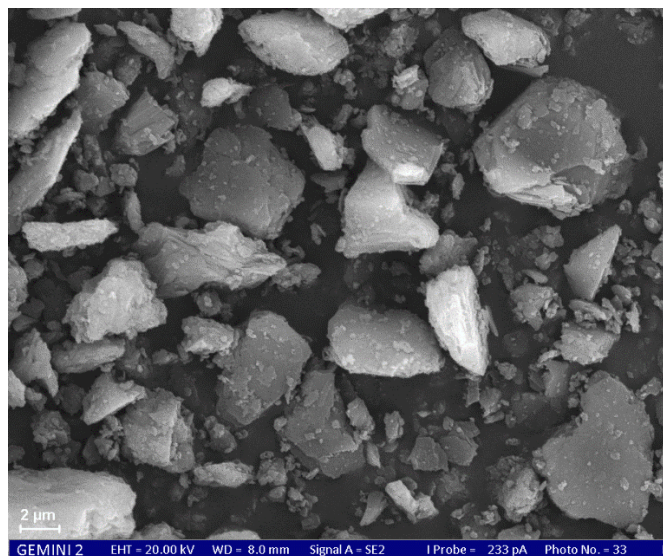
Standard FR in black rubber products  
Standard FR in white rubber products  
Specialty water booster in corporate colored specialties

#### **Elastomeric foams and thermosets:**

Water booster in nitrile/PVC  
Water booster in HFFR

#### **Solid surface:**

Water booster in HFFR



GEMINI 2 EHT - 20.00 kV WD - 8.0 mm Signal A - SE2 I Probe - 233 pA Photo No. - 33  
Picture: Alpha Calcit ©, REM of Ruhr-University-Bochum.

2020-05-06/Version 2/OK

## Alpha Calcit Füllstoff Gesellschaft mbH & Co. KG

D-50971 Köln Postfach 50 11 06  
D-50997 Köln Otto-Hahn-Str. 9-11

Telefon: +49 2236 8914-0  
Telefax: +49 2236 40644

e-mail [info@alpha-calcit.de](mailto:info@alpha-calcit.de)  
Internet [www.alpha-calcit.de](http://www.alpha-calcit.de)



Die in unseren Informationen und Druckschriften angegebenen Werte sind Durchschnittswerte ohne Rechtsverbindlichkeit

The data indicated on our data sheets and printed matters represent average values and are not legally binding.