# **Alpha Calcit Application Leaflet**



# ALFRIMAL® MG-H 4

### **Product Properties**

The new generation halogen-free flame retardant **ALFRIMAL MG-H 4** is based on natural magnesium hydroxide combining high whiteness with a narrow particle size distribution. No toxic or corrosive gases are generated in case of fire. This material is especially suitable for cable formulations, plastics and flame-retarded coatings. This material can be applied in combination with other flame retardants, e.g. aluminium hydroxide, to widen the decomposition temperature gap.

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## **Key Benefits at a glance**

- Fine magnesium hydroxide
- Acts as flame retardant (HFFR)
- Applicable in combination with ATH
- Cost reduction of FR system
- Avoid more expensive HFFRs
- Decomposition temperature > 300 °C
- Narrow decomposition temperature gap
- Independent of pH
- Exchange of 5 µm standard fillers 1:1



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## ALFRIMAL® MG-H 4

### Introduction

**ALFRIMAL MG-H 4** is used as flame retardant at processing temperatures above 200 °C. **ALFRIMAL MG-H 4** is a natural magnesium hydroxide with a high activity as catcher of acidous fire gases in flame retarding systems and PVC. **ALFRIMAL MG-H 4** shows high decomposition temperature and is more appropriate for organic compounds with advanced decomposition temperatures. Due to this fact, **ALFRIMAL MG-H 4** is especially suitable for multilayer systems like water impermeable films. Additionally, this product is especially applicable in precious cable insulations, insulation plastics and roofing systems.

### **Chemical and Physical Data**

Composition: Natural magnesium hydroxide, surface modified

Activity: 100% active by weight

Color: White

Form: Fine particle sized powder

Average particle size: 4 µm Whiteness, Ry: 95

Sieve Residue > 45  $\mu$ m: < 0,01 % Specific surface BET: 7 m²/g Residual moisture content: < 1 % Bulk Density: 400 kg/m³

## **Application examples**

#### Cables:

- High quality bedding compounds
- Water booster at temperatures > 300 °C

#### Rubber:

- Standard FR in white and colored products
- Specialty water booster in colored specialties

### **Insulation plastics:**

Standard FR in white products

#### **Roofing systems:**

• Water booster in FR systems

#### Solid surface:

 Decomposition temperature gap > 300 °C in combination with ATH-grades



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