

MoldX[®] S45

Optimized Aluminum Hydroxide (ATH)

DESCRIPTION

MoldX[®] S45 optimized alumina trihydrate is a non-halogen fire retardant product designed for fiberglass reinforced polyester applications such as sheet molding compounds (SMC), bulk molding compounds (BMC) and laminating. MoldX S45 is engineered to allow higher loadings versus standard ATH products and offers excellent processing. The increased loading capability of MoldX S45, from 180 phr to as high as 240 phr in an SMC formulation, eliminates the need for halogen fire retardant additives.

SMC compositions containing MoldX S45 as the sole flame retardant can be formulated to meet UL94 VO and UL94 5VA at thicknesses of less than 0.100 inch.

TYPICAL CHEMICAL ANALYSIS

| | |
|------------------------------------|-------|
| Al(OH) ₃ , % | 99.6 |
| SiO ₂ , % | 0.005 |
| Fe ₂ O ₃ , % | 0.007 |
| Na ₂ O (total), % | 0.2 |
| Na ₂ O (soluble), % | 0.03 |
| Loss on Ignition (550° C), % | 34.6 |
| Free Moisture (105° C), % | 0.3 |

TYPICAL PHYSICAL PROPERTIES

Screen Analysis

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|--|------|
| % on 325 mesh | 0.1 |
| % through 325 mesh | 99.9 |
| Median Particle Diameter, Microns | 9 |
| Surface Area (m ² /g)* | 2 |
| Specific Gravity (g/cm ³) | 2.42 |
| Bulk Density - Loose (g/cm ³) | 0.65 |
| Bulk Density - Packed (g/cm ³) | 0.8 |
| TAPPI Brightness** | 89 |

* As measured with a Quantachrome monosorb surface area analyzer (BET)
** TAPPI Brightness measured with a Hunterlab Colorimeter