

TECHNICAL DATA SHEET

ELEMENTIS

CHARGUARD™ 2030

Fire Retardant Synergist

GENERAL INFORMATION

CHARGUARD™ 2030 is an organically modified lamellar silicate mineral suitable for compounding in combination with fire retardants in low polarity thermoplastic resin systems. CHARGUARD™ 2030 use as a synergist may lead to improvements in general fire-retardant performance along with in-process and final product mechanical properties.

CHEMICAL & PHYSICAL PROPERTIES

Composition:	Organically Modified Bentonite Clay
Appearance:	Off-white finely divided powder
Moisture:	3.0 % max
Density:	ca. 1.7 g/cm ³
Bulk Density:	ca. 0.35-0.43
Particle Size Distribution:	200 Mesh >95%

Note: These are typical properties not to be used for specification purposes

RESIN COMPATABILITY

- Ethylene-Vinyl Acetate (EVA)
- Low Density Polyethylene (LDPE)
- Polypropylene (PP)
- EPDM Rubber

NOT suitable for:

- Engineering grade resins
- PVC Compounding

KEY PROPERTIES

- Functionally modified anti-dripping agent with enhanced low odor and color stability properties for thermoplastic processing not to exceed 220°C.
- Unique functional groups strengthen inorganic structure and enhance the density and strength of char formation.
- Improves mechanical properties of compounded thermoplastics through reduction in usage of non-halogenated fire-retardants such as ATH and MDH.
- No intentionally added Per- and polyfluoroalkyl substances (PFAS).

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INCORPORATION

To achieve an optimum dispersion and exfoliation of the additive, the use of a co-rotating twin screw extruder is required when compounding with thermoplastic resins.

CHARGUARD™2030 should be added at the hopper (throat) of the twin screw extruder to ensure optimal mixing with other performance additives. Improved mixing is achieved when using a (>40 L/ 1 D) screw geometry with a high dispersion geometry.

Notes:

- No pre-activate required.
- Use with maleated coupling agent recommended.
- Compounding at >230°C for extended periods of time will produce acrid smell and accelerated decomposition.

LEVELS OF USE

- Typically, 1CWT% to 5CWT% by dry weight as supplied based on total formulation weight.
- Masterbatch levels may vary depending on desired performance attributes.

HEALTH & SAFETY

Before using this product, please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

SHELF LIFE

4 (four) years from date of manufacture.

STORAGE RECOMMENDATIONS

To be sorted and transported at a temperature below 50°C in a cool, dry location.

QUALITY ASSURANCE

Quality system at the site manufacturing this product complies with and is certified to ISO 9001 quality standards.

SUSTAINABILITY

Our commitment to sustainability is reflected in our smectite clay mining operations, which boast over 21% lower mining emissions compared to similar clays. By minimizing organic modification and purification processes, we reduce energy consumption. Additionally, we ensure a high standard for human rights and biodiversity throughout the product lifecycle. This dedication to quality and sustainability underscores our leadership in providing superior organoclays that meet the evolving demands of modern industries.

NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.

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