

CHARGUARD™ 2010**Fire Retardant Synergist**

GENERAL INFORMATION

CHARGUARD™ 2010 is an organically modified special lamellar silicate structure for use as a flame retardant synergist in the halogen-free flame-retardant thermoplastic system. Its unique lamellar structure effectively blocks gas to achieve flame retardant synergistic effect, increases the density and strength of carbon layer, inhibit dripping and improves the mechanical properties of thermoplastic materials

CHEMICAL & PHYSICAL PROPERTIES

Composition	Organically Modified Bentonite Clay
Appearance	Milky white to slight grey
Moisture	3.0 % max
Bulk density	< 0.35 g/cm ³
Particle Size Distribution	>95% pass (325 mesh)

These are typical properties not to be used for specification purposes

APPLICATIONS

- Ethylene-Vinyl Acetate co-polymer (EVA)
- Low Density Polyethylene (LDPE)
- High Impact Styrene (HIPS)
- Polypropylene (PP)
- Polyamide (Nylon 6)
- Polylactic Acid (PLA)

KEY PROPERTIES

- Does not contain intentionally added Per- and polyfluoroalkyl substances (PFAS).
- Uniform lamellar structure › unique functional group modification, lower addition
- Enhance gas barrier, reduce the heat release rate, to achieve the synergistic effect of flame retardant.
- The unique functional groups strengthen the inorganic structure, increases char formation efficiency, enhances the density and strength of carbon layer, and inhibit dripping.
- To lower aluminum hydroxide and magnesium dosage in polymers and enhance plastic processing and polymer structure mechanical strength.

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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™ 2010** should be added at the 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 coupling agent recommended.

LEVELS OF USE

Typically, 1% and 5% 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

CHARGUARD™ 2010 has a shelf life of 4 (four) years from date of manufacture.

STORAGE RECOMMENDATIONS

CHARGUARD™ 2010 should be stored and transported at cool and dry condition and away from moisture and fire.

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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North America
Elementis
469 Old Trenton Road
East Windsor
NJ 08512, USA
T: +1 609 443 2500

Europe
Elementis UK Ltd.
c/o Elementis GmbH
Stolberger Strasse 370
50933 Cologne, Germany
T: +49 221 2923 2066

Asia
Deuchem (Shanghai) Chemical Co., Ltd.
99, Lianyang Road
Songjiang Industrial Zone
Shanghai, China 201613
T: +86 21 5774 0348