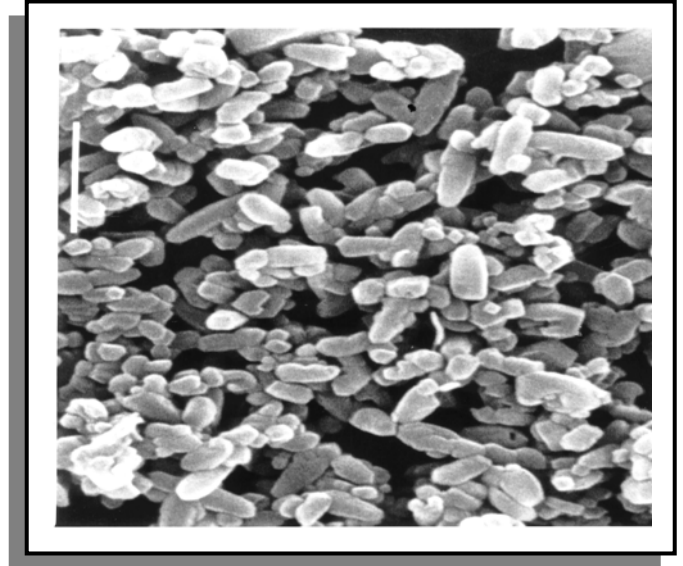


Product Description

TUFFGARD® precipitated calcium carbonate (pcc) is a surface treated, fine particle size functional filler. The controlled particle size distribution combined with the engineered crystal morphology produces a unique precipitated calcium carbonate which can function to provide high efficiency property development for polymer composites.



Applications

TUFFGARD® precipitated calcium carbonate is an engineered sub-micron functional filler with a unique crystal morphology. This crystal morphology combined with the controlled particle size distribution of TUFFGARD® pcc yields a unique calcium carbonate which functions as a high efficiency impact modifier for rigid PVC applications.

TUFFGARD® pcc imparts maximum impact development within a tight compounding range typical between 12-18 phr and enhances low temperature impact by avoiding the glass transition issues associated with organic impact modifiers.

Typical applications include vinyl siding substrates with the potential to eliminate use of organic impact modifiers. Other applications include weatherable profiles utilizing partial to full organic impact modifier replacement, and injection molded parts.

Additional information on the use of TUFFGARD® pcc may be found in the following Technical Papers which are available from Specialty Minerals:

- *Adding Value to PVC Formulations with Ester Lubricants and Fine Calcium Carbonate*; Wiebking, et al
- *The Effect of Calcium Carbonate Size and Loading Level on the Impact Performance of Rigid PVC Compounds*; Bryant and Wiebking
- *Dry Bulk Powder Handling in Plastics Processing*; Barabas and Wiebking

Features

- Controlled particle size architecture
- Sub-micron median particle size
- Process controlled topline
- Controlled particle size distribution

Advantages

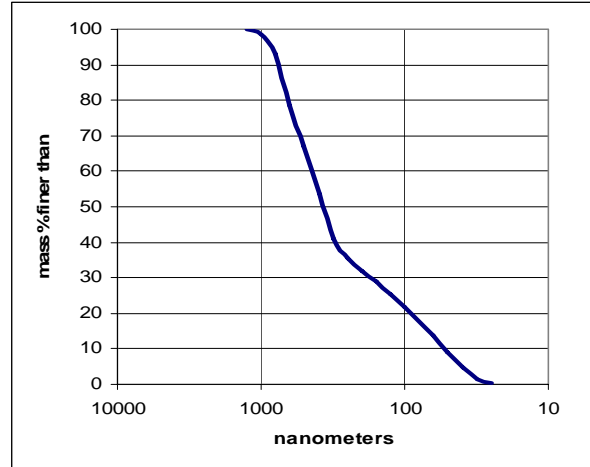
- Increased resin extension
- Improved impact strength
- Improved impact strength
- Consistent quality

Benefits

- Reduced Volume Formulation Cost
- Minimize impact modifier loading
- Minimize impact modifier loading
- Improved product quality, reduced scrap

Typical Physical Properties

Surface Area (meters ² /gram)	10 - 15
Dry Brightness (Hunter Y, Rd value)	94 min.
Specific Gravity	2.7
+325 Mesh (weight %)	0.10
Coating Level (%)	1.4 - 2.0
Moisture (%)	0.5 max.
Bulk Density (pounds/ft ³)	20 - 25



TUFFGARD[®] is listed under the NSF generic listing program for CaCO₃

Shipping Information

TUFFGARD[®] pcc ships from Brookhaven, MS

Product is available in rail bulk, truck bulk, supersack, and 50 lb. bags. For availability and minimum order quantity, contact customer service.

All products are sold on the understanding that the user is solely responsible for determining their suitability for the intended use. All information given and recommendations made herein are based upon our research and are believed to be accurate, but no guarantee, either expressed or implied, is made with respect thereto or with respect to the infringement of any patent. SMI MAKES NO WARRANTY OF MERCHANTABILITY OR SUITABILITY FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH ANY SALE OF THE PRODUCTS DESCRIBED HEREIN. Inconsistent terms and conditions contained in Buyer's purchase order shall not be binding on SMI/BMI unless reflected in writing signed by SMI/BMI's representative. This information is not to be copied, used in evidence, released for publication or public distribution without written permission from Specialty Minerals Inc./Barretts Minerals Inc.

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