

## BYK-MAX CT 4255

Organo-modified phyllosilicate to improve physical properties and barrier performance in thermoplastic compounds. Especially suited for films and automotive applications.

### Product Data

#### Composition

Trialkyl ammonium phyllosilicate

#### Typical Properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Density (25 °C): 1.88 g/ml  
Moisture content: <3 %  
Typical dry particle size: <40 µm (d50)  
Color: off white

#### Storage and Transportation

To be stored and transported below 50 °C. Store dry.

### Applications

#### Thermoplastics

##### Special Features and Benefits

BYK-MAX CT 4255 is designed for use as an additive in thermoplastic compounds to provide a range of enhanced physical properties, such as improved tensile strength and particularly improved barrier properties. It can reduce gas permeation by up to 40 %. The unique organo-functionality provides higher thermal stability during processing than previous products.

##### Recommended Use

BYK-MAX CT 4255 can be used with all thermoplastic resins. The product is particularly suited for use with engineering resins, such as polyamides and polyesters. Target application areas are automotive parts, barrier packaging and flame retardant compounds.

## Recommended Levels

3-5 % additive (as supplied) based on the total formulation.

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

## Incorporation and Processing Instructions

To achieve an optimum dispersion and exfoliation of the additive, the use of co-rotating twin-screw extruders or a BUSS continuous kneader is recommended for compounding thermoplastics materials. When compounding, it is beneficial to select the longest possible processing unit (> 40 L/D) and a screw geometry with a high dispersion performance. To avoid compaction of the additive, it should be added to the already melted polymer via a side feed or an inlet screw, if possible.

## Special Note

Excessive heat can lead to reduced product performance and odor formation. Extreme heat can potentially lead to smoke generation at the die. "Ultra-high shear rates" in the extruder can also cause re-agglomeration and reduced performance.



Additive Guide



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