

## BYK-MAX NU 4233

Nucleation aid composition for use in polypropylene to promote  $\beta$ -crystal formation and enhance impact strength, elongation at break and visual opacity in injection molding, extrusion and thermoforming applications.

Only available in Europe

### Product data

#### Composition

Nucleation aid composition in a polypropylene carrier

#### Typical properties

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

MFR (230 °C, 2.16 kg): 15 g/10 min  
Color: off-white  
Delivery form: pellet

#### Storage and transportation

Product shelf life in unopened original packaging: 24 months  
Store in sealed containers in a cool, dry, and well-ventilated place.

### Applications

#### Thermoplastics

##### Special features and benefits

BYK-MAX NU 4233 is a highly effective, thermally stable additive concentrate for the controlled formation of the  $\beta$ -crystal structure in polypropylene. It is based on finely dispersible, crystalline particles that can produce a controlled  $\beta$ -crystal content of 90 % or higher. The targeted  $\beta$ -crystallization results in a significant increase in impact strength, increased tensile elongation, and improved resistance to crack propagation, even under cold or impact stress. These properties make the additive particularly advantageous for applications where mechanical strength is required in combination with high deformation capacity. The lamellar structure of the  $\beta$ -crystallites also produces intense light scattering, giving the material a uniform, opaque appearance even without the addition of white pigments. In packaging or visible applications, this allows material savings to be achieved through reduced wall thicknesses while maintaining the same opacity. It can be used in both virgin and recycled materials and contributes to property optimization in recycling applications.

**Recommended use**

Injection and compression molding parts	<input checked="" type="checkbox"/>
Extrusion and blow molding parts	<input checked="" type="checkbox"/>
Thermoformed parts	<input checked="" type="checkbox"/>
Thick films and sheets	<input checked="" type="checkbox"/>
Thin films	<input checked="" type="checkbox"/>

especially recommended    recommended

**Recommended levels**

1-5 % additive (as supplied) based on the total formulation.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

**Incorporation and processing instructions**

The additive can be added via volumetric or gravimetric dosing systems during processing in all extruders, blow molding and injection molding machines.



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