

## BYK-MAX NU 4230 LDPE

Granulated nucleation agent based on LDPE to increase the crystallization speed and amount of spherulites in the polymer.

### Product Data

#### Composition

Additive concentrate

#### Typical Properties

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

Bulk density: 465-530 kg/m<sup>3</sup>  
MFR (190 °C, 2.16 kg): 22 g/10 min  
Active substance: 2 %  
Supplied as: White to off-white granulate

#### Food Contact Legal Status

For the current food contact legal status, please contact our product safety department or visit [www.byk.com](http://www.byk.com) for further information.

#### Storage and Transportation

Store in sealed containers in a cool, dry, and well-ventilated location.

### Applications

#### Thermoplastics

##### Special Features and Benefits

BYK-MAX NU 4230 LDPE contains a powerful nucleation agent with a very high level of dispersion, offering the optimum balance between increased production speed and improved physical properties. The nucleating agent increases crystallization during cooling, thereby accelerating cooling and at the same time encouraging a consistently crystalline structure. BYK-MAX NU 4230 LDPE facilitates high throughput by improving isotropy, which enables the production cycles in processing plants to be reduced. The more regular homogeneous crystallization prevents defects when making molds and increases the dimensional stability, rigidity, and thermal stability, especially when compared with pigmented or other nucleated systems. BYK-MAX NU 4230 LDPE improves the production performance in injection molding processes by more than 10%. The product minimizes neck roundness errors in blow-molded bottles, thereby making it possible to reduce cycle times. It also increases the processing reliability when using recycled materials. BYK-MAX NU 4230 LDPE reduces the solidification limit (frost line) in blown film extrusion, which can improve productivity. The permeability to gases (oxygen up to 30%, water vapor, solvent vapors) of films and blow-molded bottles is reduced, providing the option to improve quality or reduce material thickness. Using BYK-MAX NU 4230 LDPE, there is no need to make any color-specific machine adjustments.

## Recommended Use

Injection-molded products	<input checked="" type="checkbox"/>
Blow-molded products	<input checked="" type="checkbox"/>
Films	<input checked="" type="checkbox"/>

especially recommended     recommended

## Recommended Levels

1-3 % additive (as supplied) based upon 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

The additive can be added via volumetric or gravimetric dosing units during processing in all extruders and injection molding plants.

## Special Note

Compared with non-nucleated PE types, the extrusion temperature can be reduced by 20-30 °C and the cooling time by up to 20 %. The ideal process parameters should be determined through testing.



Additive Guide



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