

Lupolen

# 5261 Z Q 456

High Density Polyethylene

Pipe and Sheet Extrusion Grade

High Load Melt Index **2.0** Density **0.954**

## Product Description

Lupolen 5261 Z Q 456 is a high density polyethylene (HDPE) with high melt viscosity for ram extrusion of peroxide crosslinked pipes (PE-Xa). The product is supplied as a nominal 20 mesh (840 µm) powder.

It is not intended for medical or pharmaceutical applications.

## Product Characteristics

<b>Status</b>	Commercial: Active
<b>Test Method Used</b>	ASTM
<b>Availability</b>	Europe, North America
<b>Processing Method</b>	Extrusion Pipe, Sheet and Semi Finished Products
<b>Physical Form</b>	Powder
<b>Typical Customer Applications</b>	Plumbing, Heating and Cooling

## Typical Properties

	<b>ASTM Method</b>	<b>Value</b>	<b>Unit</b>
<b>Physical</b>			
Density	D 1505	0.954	g/cm <sup>3</sup>
Melt Flow Rate (MFR) (190 °C/21.6kg)	D 1238	2.0	g/10 min
<b>Mechanical</b>			
Tensile Modulus (23 °C, v = 0.5 in/min, 1% Secant)	D 638	190000	psi
Tensile Stress at Yield (23 °C, v = 2 in/min)	D 638	4100	psi
Tensile Strain at Yield (23 °C, v = 2 in/min)	D 638	9	%
<b>Hardness</b>			
Shore D Hardness (15 sec)	D 2240	65	
<b>Thermal</b>			
Vicat Softening Temperature (VST/A/50 K/h (10 N))	D 1525	130	°C
(VST/B/50 K/h (10 N))		80	°C
Melting Temperature	D 3418	134	°C

### Notes

Typical properties; not to be construed as specifications.

## Further Information

### Lupolen 5261 Z Q 456

#### Conveying:

Customers and other users should consider utilizing conveying equipment designed to prevent production and accumulation of fines and dust particles that may be contained to a small extent in polymer materials. These particles may, under certain conditions, pose an explosion hazard. Certain considerations when choosing a conveying system may include using a system that is equipped with adequate filters, is operated and maintained so that no leaks develop and has adequate electrical grounding at all times.

## Health and Safety

Special requirements apply to certain applications such as food contact end-use and direct medical use. For specific information on regulatory compliance, contact your local representative.

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Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimum precaution to prevent mechanical or thermal injury to the eyes.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation may have an unpleasant odor, and in higher concentrations, they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapors. Regulations on the control of emissions and pollution prevention must be observed. Generally, few, if any, known health hazards in processing the material have been reported where the common principles of sound manufacturing practice in the industry are adhered to and the place of work is well ventilated.

The material will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning, the material generates considerable heat and may generate dense black smoke. Minor fires can be extinguished by water; developed fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing, please refer to the Material Safety Data Sheet (MSDS).

#### Storage

The material is packed in 25 kg bags or in bulk containers protecting it from contamination. Storage times of natural materials longer than six months may alter the quality of the final product (for example, the brightness). It is generally recommended to convert all materials within six months of production.

The material is subjected to degradation by ultra-violet radiation or by high storage temperatures. Therefore, the material should be protected from direct sunlight, temperatures above 40 °C and high atmospheric humidity during storage.

Additional storage considerations to avoid should include conditions under which there may be large fluctuations in ambient temperature and high atmospheric humidity. These conditions may lead to moisture condensing inside the packaging. Under these circumstances, it is recommended to dry the material before use. Such storage conditions may also intensify the material's slight characteristic odor.

#### Disclaimer

Before using this product, customers and other users should make their own independent determination that the product is suitable for the intended use. They should also ensure that they can use the product safely and legally. This document does not constitute a warranty, express or implied, including a warranty of merchantability or fitness for a particular purpose. No one is authorized to make such warranties or assume any liabilities on behalf of Equistar except in writing signed by an authorized Equistar employee. Unless otherwise agreed in writing, the exclusive remedy for all claims is replacement of the product or refund of the purchase price at Equistar's option, and in no event shall Equistar be liable for special, consequential, incidental, punitive or exemplary damages.