

## Technical Data Sheet

# Lupolen 5461 B Q 471NA POWDER



High Density Polyethylene

### Product Description

Lupolen 5461 B Q 471NA POWDER is a high density polyethylene (HDPE) with high melt viscosity for extrusion of peroxide cross-linked pipes (PEX-a). The product is supplied as a nominal 25 mesh (725 µm) powder.

### Regulatory Status

For regulatory compliance information, see *Lupolen 5461 B Q 471NA POWDER* [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

<b>Status</b>	Commercial
<b>Availability</b>	North America
<b>Application</b>	Drinking Water Pipe; Plumbing, Heating & Cooling; Underfloor Heating
<b>Market</b>	Industrial, Building & Construction; Pipe
<b>Processing Method</b>	Pipe
<b>Attribute</b>	High Density

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
Melt Flow Rate					
(190 °C/5.0 kg)	0.27	g/10 min	0.27	g/10 min	ASTM D1238
(190 °C/21.6 kg)	10	g/10 min	10	g/10 min	ASTM D1238
Density, (23 °C)	0.954	g/cm <sup>3</sup>	0.954	g/cm <sup>3</sup>	ASTM D1505
<b>Mechanical</b>					
Flexural Modulus, (2% Secant)	154000	psi	1062	MPa	ASTM D790
Tensile Modulus, (1% Secant)	177000	psi	1220	MPa	ASTM D638
Tensile Stress at Break, (23 °C)	5000	psi	34.5	MPa	ASTM D638
Tensile Stress at Yield, (23 °C)	4020	psi	27.7	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	1200	%	1200	%	ASTM D638
Tensile Elongation at Yield, (23 °C)	8	%	8	%	ASTM D638
<b>Hardness</b>					
Shore Hardness					
(Shore D, max)	68		68		ASTM D2240
(Shore D, 15 sec)	63		63		ASTM D2240
<b>Thermal</b>					
Vicat Softening Temperature					
(A1)	262	°F	128	°C	ASTM D1525
(B1)	264	°F	129	°C	ASTM D1525

## Notes

All properties are on powder as-supplied and without any induced cross-linking.

These are typical property values not to be construed as specification limits.

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

© LyondellBasell Industries Holdings, B.V. 2018

## Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

## Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.