

**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/>.

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