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).

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

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
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/cm³	0.954	g/cm³	ASTM D1505
Mechanical					
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
Hardness					
Shore Hardness					
(Shore D, max)	68		68		ASTM D2240
(Shore D, 15 sec)	63		63		ASTM D2240
Thermal					
Vicat Softening Temperature					
(A1)	262	°F	128	°C	ASTM D1525
(B1)	264	°F	129	°C	ASTM D1525

Manufacturer website: https://www.lyondellbasell.com/en/

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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