

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.

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/cm ³	0.954	g/cm ³	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

