

Technical Data Sheet

Lupolen LP5465X01 POWDER

High Density Polyethylene

Product Description

Lupolen LP5465X01 POWDER is a high density polyethylene (HDPE) with high melt viscosity for the extrusion of peroxide cross-linked pipes (PEX-a). The product is supplied as a nominal 25 mesh (780 µm) powder.

Regulatory Status

For regulatory compliance information, see *Lupolen* LP5465X01 POWDER [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Developmental
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)	6.5	g/10 min	6.5	g/10 min	ASTM D1238
Density, (23 °C)	0.953	g/cm ³	0.953	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (2% Secant)	160000	psi	1103	MPa	ASTM D790
Tensile Modulus, (1% Secant)	180000	psi	1241	MPa	ASTM D638
Tensile Stress at Break, (23 °C)	5120	psi	35.3	MPa	ASTM D638
Tensile Stress at Yield, (23 °C)	3960	psi	27.3	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	900	%	900	%	ASTM D638
Tensile Elongation at Yield, (23 °C)	9	%	9	%	ASTM D638
Hardness					
Shore Hardness					
(Shore D, max)	67		67		ASTM D2240
(Shore D, 15 sec)	60		60		ASTM D2240
Thermal					
Vicat Softening Temperature					
(A1: 50 °C/h, 10N)	262	°F	128	°C	ASTM D1525
(B1: 120 °C/h, 10N)	264	°F	129	°C	ASTM D1525