Technical Data Sheet

Petrothene LT493501

High Density Polyethylene

Product Description

Petrothene LT493501 is a high density copolymer natural resin used by customers for conduit with demanding environmental stress crack resistance requirements. LT493501 offers an excellent balance of stiffness, toughness and ease of processing.

Conduit made with this resin is used with fiber optic cable, electrical cable and telecommunications cable. LT493501 meets the material requirements for polyethylene conduit as per ASTM F2160 and also meets the requirements of ASTM D3350 cell classification 435530A.

Regulatory Status

For regulatory compliance information, see *Petrothene* LT493501 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial
Availability	North America
Application	Conduit
Market	Industrial, Building & Construction; Pipe
Processing Method	Pipe; Sheet and Profile Extrusion
Attribute	Excellent Processability; High ESCR (Environmental Stress Cracking Resistance)

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.34	g/10 min	0.34	g/10 min	ASTM D1238
Density, (23 °C)	0.948	g/cm³	0.948	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (2% Secant)	131600	psi	900	MPa	ASTM D790
Tensile Strength at Yield	3500	psi	24.1	MPa	ASTM D638
Tensile Elongation at Break	>600	%	>600	%	ASTM D638
Environmental Stress Crack Resistance					
F_{10} (10% Igepal®, Cond B)	>96	hr	>96	hr	ASTM D1693
F_{50} (100% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Thermal					
Low Temperature Brittleness	<-101	°F	<-74	°C	ASTM D746
DSC Induction Temperature	>473	°F	>245	°C	ASTM D3350

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

Notes

Igepal® is a registered trademark of Rhodia.

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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