

Technical Data Sheet

Hyperzone HY44930

High Density Polyethylene

Product Description

Hyperzone HY44930 is a high density copolymer natural resin used by customers for conduit applications with demanding environmental stress crack resistance requirements. HY44930 offers an excellent balance of stiffness, environmental stress crack resistance, toughness, and ease of processing.

Conduit made with this resin is used with fiber optic cable, electrical cable, and telecommunications cable. HY44930 meets the material requirements for polyethylene conduit per ASTM F2160 and also meets the following requirements:

- ASTM D3350 Cell Classifications: **PE435530A** and **PE435580A**.

Application Conduit

Processing Method Pipe

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.32	g/10 min	0.32	g/10 min	ASTM D1238
Density, (23 °C)	0.949	g/cm ³	0.949	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (2% Secant)	142400	psi	980	MPa	ASTM D790
Tensile Stress at Yield	3620	psi	25.0	MPa	ASTM D638
Tensile Elongation at Break	>600	%	>600	%	ASTM D638
Environmental Stress Crack Resistance					
F ₁₀ (10% Igepal®, Cond B)	>110	hr	>110	hr	ASTM D1693
F ₅₀ (10% Igepal®, Cond B)	>150	hr	>150	hr	ASTM D1693
F ₅₀ (100% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Thermal					
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
DSC Induction Temperature	>464	°F	>240	°C	ASTM D3350

Notes

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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