



High Density Polyethylene

Product Description

Hyperzone HY55430 is a high density polyethylene resin that exhibits excellent processability and environmental stress crack resistance. Typical applications include bottles for household chemicals, food products, and personal care products.

Regulatory Status

For regulatory compliance information, see *Hyperzone* HY55430 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS). To obtain copies of these documents, please contact your LyondellBasell product safety representative.

Status	Developmental
Availability	Asia-Pacific; Europe; North America
Application	Bottles For Consumer Goods
Market	Rigid Packaging
Processing Method	Extrusion Blow Molding
Attribute	Excellent ESCR (Environmental Stress Cracking Resistance); Excellent Processability

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.30	g/10 min	0.30	g/10 min	ASTM D1238
Density, (23 °C)	0.954	g/cm ³	0.954	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	190000	psi	1310	MPa	ASTM D790
Tensile Strength at Yield	4000	psi	27.6	MPa	ASTM D638
Tensile Elongation at Break	>1000	%	>1000	%	ASTM D638
Environmental Stress Crack Resistance, F ₅₀ (100% Igepal®, Cond B)	200	hr	200	hr	ASTM D1693
Impact					
Tensile Impact Strength	140	ft-lb/in ²	294	kJ/m ²	ASTM D1822
Hardness					
Shore Hardness, (Shore D)	68		68		ASTM D2240
Thermal					
Vicat Softening Temperature	259	°F	126	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	151	°F	66	°C	ASTM D648

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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