

## Technical Data Sheet

### *Hyperzone* HY55430X01



High Density Polyethylene

#### Product Description

This is a preliminary data sheet.

*Hyperzone* HY55430X01 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.

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

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
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 <sup>3</sup>	0.954	g/cm <sup>3</sup>	ASTM D1505
<b>Mechanical</b>					
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 <sub>50</sub> (100% Igepal®, Cond B)	200	hr	200	hr	ASTM D1693
<b>Impact</b>					
Tensile Impact Strength	140	ft-lb/in <sup>2</sup>	294	kJ/m <sup>2</sup>	ASTM D1822
<b>Hardness</b>					
Shore Hardness, (Shore D)	68		68		ASTM D2240
<b>Thermal</b>					
Vicat Softening Temperature	259	°F	126	°C	ASTM D1525
Low Temperature Brittleness, F <sub>50</sub>	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	151	°F	66	°C	ASTM D648