Qplast™ QPHD G353

High Density Polyethylene

Qplast™ QPHD G353 High Density Polyethylene (HDPE) resin is a multipurpose polymer designed for blow molded containers used to package household industrial chemicals, cosmetics and food products. This product can be blow molded into thin walled parts and houseware items, and can be extruded into profiles.

Supplier	Qplast
Applications	• Household Chemical Containers • Toiletry Containers • Cosmetic Containers • Health & Medical Aids • Food Packaging Containers

Resin Properties

	Typical Value (English)		Typical Value (SI)		Test Method
Density	0.952	g/cm³	0.952	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	0.38	g/10 min	0.38	g/10 min	ASTM D1238
High Load Melt Index (190°C/21.6 kg)	33	g/10 min	33	g/10 min	ASTM D1238

Molded Properties

Tensile Strength at Yield	3800	psi	26	MPa	ASTM D638
Tensile Strength at Break	4400	psi	30	MPa	ASTM D638
Elongation at Yield	7	%	7	%	ASTM D638
Elongation at Break	1000	%	1000	%	ASTM D638
Flexural Modulus — 1% Secant	170000	psi	1172	MPa	ASTM D790B
Flexural Modulus — 2% Secant	145000	psi	1000	MPa	ASTM D790B
Environmental Stress-Cracking Resistance (ESCR) 122°F (50 °C), 100% Igepal, F50	80	hr	80	hr	ASTM D1693
Durometer Hardness (Shore D)	61		61		ASTM D2240

Thermal

DTUL at 66psi — Unannealed	163	°F	73	°C	ASTM D648
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746

Impact

Tensile Impact Strength	80 ft·lb/in²	168 kJ/m²	ASTM D1822

Disclaimer

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