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 — 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

The information presented in this document is believed to be accurate as of the date of publication. However, it is provided for general informational purposes only. It does not imply any express or implied warranty or quality specification, including but not limited to warranties of merchantability or fitness for a particular purpose. Users are solely responsible for independently assessing whether the product is suitable for their intended use and ensuring that it can be used safely and in compliance with relevant laws and regulations. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document.

REV: 2024

1900 Spring Rd suite 430, Oak Brook, IL 60523 quantumpolymers.com