

# Qplast™

## QPHJ 405L

### High Density Polyethylene

Qplast™ QPHJ 405L High Density Polyethylene Resin is designed for a wide array of injection molding applications. This resin offers an exceptional balance of toughness, environmental stress crack resistance, and ease of processing.

#### Supplier



#### Additive

Antiblock: No; Slip: No; Processing Aid: No

#### Applications

- Housewares
- Toys
- Food Containers
- Pails

#### Resin Properties

	Typical Value (English)	Typical Value (SI)	ASTM Method
Density	0.950 g/cm <sup>3</sup>	0.950 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	44 g/10 min	44 g/10 min	ASTM D1238

#### Thermal

Deflection Temperature Under Load (DTUL) at 66psi — Unannealed	160 °F	71 °C	ASTM D648
Brittleness Temperature	-98 °F	-72 °C	ASTM D746
Vicat Softening Temperature	253 °F	123 °C	ASTM D1525
Melting Temperature (DSC)	262 °F	128 °C	Proprietary Method
Peak Crystallization Temperature (DSC)	241 °F	116 °C	Proprietary Method

#### Molded Properties

Tensile Strength at Yield	3800 psi	27 MPa	ASTM D638
Tensile Strength at Break	3800 psi	27 MPa	ASTM D638
Elongation at Yield	5 %	5 %	ASTM D638
Elongation at Break	10 %	10 %	ASTM D638
Flexural Modulus — 2% Secant	148000 psi	1020 MPa	ASTM D790B
Environmental Stress-Crack Resistance 10% Igepal	3 hr	3 hr	ASTM D1693B

Impact

Tensile Impact Strength	40 ft-lb/in <sup>2</sup>	84.1 kJ/m <sup>2</sup>	ASTM D1822
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Hardness

Durometer Hardness	62	62	ASTM D2240
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