

TECHNICAL DATASHEET

HDPE QB860

PRODUCT DESCRIPTION

QB860 is a narrow molecular weight distribution homopolymer that exhibits enhanced flow characteristics and good balance of stiffness and impact resistance. Typical applications include cases, tote bins, crates and trays and open-head pails.

TYPICAL PROPERTIES	ENGLISH		SI		TEST METHOD
	UNIT	VALUE	UNIT	VALUE	
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	g/10 min	7.9	g/10 min	7.9	ASTM D1238
Density (23 °C)	g/cm ³	0.960	g/cm ³	0.960	ASTM D1505
Bulk Density	lb/ft ³	37-39	kg/m ³	593-625	ASTM D1895
Spiral Flow	in	8.6	cm	21.8	Producer Method
Mechanical					
Flexural Modulus, (1% Secant)	psi	190000	MPa	1310	ASTM D790
Flexural Modulus, (2% Secant)	psi	155000	MPa	1070	ASTM D790
Flexural Young's Modulus	psi	205000	MPa	1410	ASTM D790
Tensile Modulus, (1% Secant)	psi	123000	MPa	848	ASTM D638
Tensile Young's Modulus	psi	146000	MPa	1010	ASTM D638
Tensile Stress at Break, (23 °C)	psi	2300	MPa	15.9	ASTM D638
Tensile Stress at Yield, (23 °C)	psi	4250	MPa	29.3	ASTM D638
Tensile Elongation at Break, (23 °C)	%	380	%	380	ASTM D638
Tensile Elongation at Yield, (23 °C)	%	11	%	11	ASTM D638
Impact					
Notched Izod Impact Strength, (23 °C)	ft-lb/in	1.4	J/m	75	ASTM D256
Unnotched Impact Strength, (-18 °C)		No break		No break	ASTM D4812
Hardness					
Shore Hardness, (Shore D, max)		70		70	ASTM D2240
Thermal					
Vicat Softening Temperature	°F	264	°C	129	ASTM D1525
Low Temperature Brittleness, F ₅₀	°F	<-105	°C	<-76	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	°F	176	°C	80	ASTM D648

HDPE

HIGH DENSITY
POLYETHYLENE
QB860

QualiteneTM

ENABLING A SUSTAINABLE FUTURE

Notes: Conditions of Tensile Stress and Elongation values are: 50 mm/min, Type IV specimen.

Conditions of Flexural Modulus values are: 0.5 inches/min or 12.5 mm/min.

Conditions of Tensile Modulus values are: 50 mm/min, Type I Specimen.

Spiral Flow measures the number of inches of flow produced when molten resin is injected into a long, spiral channel (0.0625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440 °F.

Deflection Temperature Under Load and Low Temperature Brittleness data are for control and development work and are not intended for use in design or predicting performance at elevated or sub-ambient temperatures.

These are typical property values not to be construed as specification limits.

APPLICATION:

Crates; Pallets/Trays/Tote Bins

PROCESSING METHOD:

Injection Moulding

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.

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