Qualitene™
ENABLING A SUSTAINABLE FUTURE

TECHNICAL DATASHEET
HDPE QB865

PRODUCT DESCRIPTION

QB865 is a homopolymer that enhances processing and stiffness, exhibits excellent colour, low odor and good processing stability. Typical applications include cases, crates, trays, tote bins and open-head pails.

APPLICATION:

Crates; Pallets/Trays/Tote Bins

TYPICAL PROPERTIES	ENGLISH		SI		TEST METHOD
	UNIT	VALUE	UNIT	VALUE	
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	g/10 min	8.0	g/10 min	8.0	ASTM D1238
Density	g/cm³	0.965	g/cm³	0.965	ASTM D1505
Spiral Flow	in	9.1	cm	23.1	Producer Method
Mechanical					
Flexural Modulus, (1% Secant)	psi	256500	MPa	1769	ASTM D790
Flexural Modulus, (2% Secant)	psi	214700	MPa	1480	ASTM D790
Tensile Modulus, (1% Secant)	psi	179000	MPa	1234	ASTM D638
Tensile Young's Modulus	psi	204200	MPa	1408	ASTM D638
Tensile Stress at Break, (23 °C)	psi	4100	MPa	28.3	ASTM D638
Tensile Stress at Yield, (23 °C)	psi	4770	MPa	32.9	ASTM D638
Tensile Elongation at Break, (23 °C)	%	16.5	%	16.5	ASTM D638
Tensile Elongation at Yield, (23 °C)	%	6.1	%	6.1	ASTM D638
Impact					
Notched Izod Impact Strength, (23 °C)	ft-lb/in	0.66	J/m	35	ASTM D256
Hardness					
Shore Hardness, (Shore D, max)		68		68	ASTM D2240
Thermal					
Vicat Softening Temperature	°F	262	°C	128	ASTM D1525
Low Temperature Brittleness, F_{50}	°F	<-105	°C	<-76	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	°F	179	°C	81.7	ASTM D648
Melting Temperature	°F	270	°C	132.2	ASTM D3418
Crystallization Temperature	°F	248	°C	120	ASTM D3418

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HIGH DENSITY
POLYETHYLENE
QB865

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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.

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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