

HIDEN® B500

High Density Polyethylene

YUHW A Korea Petrochemical Ind. Co., Ltd.

Technical Data

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
Availability	• Asia Pacific
Features	• Good Chemical Resistance • Good Drawdown • Good Impact Resistance
Uses	• Bottles
Agency Ratings	• FDA Food Contact, Unspecified Rating
Forms	• Pellets
Processing Method	• Blow Molding

Physical	Nominal Value Unit	Test Method
Density	0.958 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20 g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.5 to 2.5 %	ASTM D955
Water Absorption (24 hr)	0.010 %	ASTM D570
Environmental Stress-Cracking Resistance 10% Igepal	40.0 hr	ASTM D1693B

Mechanical	Nominal Value Unit	Test Method
Tensile Strength (Yield)	30.4 MPa	ASTM D638
Tensile Elongation (Break)	500 %	ASTM D638
Flexural Modulus	1030 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact	490 J/m	ASTM D256

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	50	ASTM D785

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	68.0 °C	ASTM D648
Vicat Softening Temperature	122 °C	ASTM D1525
Melting Temperature	134 °C	DSC
CLTE - Flow	0.00015 cm/cm/°C	ASTM D696
Specific Heat	1880 J/kg/°C	ASTM C351

Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+17 ohm·cm	ASTM D257
Dielectric Strength ³	48 kV/mm	ASTM D149
Dielectric Constant (1.00 GHz)	2.30	ASTM D150
Dissipation Factor (1.00 GHz)	0.00020	ASTM D150

Additional Information

The values listed as Mold Shrink ASTM D955 and Specific Heat ASTM C351, were tested in accordance with KPIC method.
Brittleness Temperature, KPIC method: <-70E-4 cal cm/cm sec °C
Water Absorption @ 24 hrs, ASTM D570: <0.01%
Tensile Elongation at Break, ASTM D638: >500%
Notched Izod Impact, ASTM D256: >50 kg cm/cm (490 J/m)

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ Method A (Short-Time)