

TECHNICAL DATA SHEET

HDI8965UV

High Density Polyethylene

PRODUCT DESCRIPTION

This type of HDPE is a homopolymer of ethylene with narrow unimodal MWD

PROCESSING METHODS

Injection Molding

CHARACTERISTICS

Excellent Stiffness
UV Resistance
Good Processability

APPLICATIONS

Crates
Cases
Tote Boxes

RESIN PROPERTIES

TEST METHOD

VALUES, ENGLISH UNITS

VALUES, INTERNATIONAL UNITS

Melt Flow Rate 2.16 kgf/190 °C MFR₂

ASTM D1238

8.00 g/10 min

8.00 g/10 min

Density 23 °C

ASTM D1505

0.965 g/cm³

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UV Stabilizer

Yes

Yes

Antioxidant Package

Yes

Yes

MECHANICAL PROPERTIES

TEST METHOD

VALUES, ENGLISH UNITS

VALUES, INTERNATIONAL UNITS

Tensile Strength at Yield

23 °C, 2.0 in/min (50.8 mm/min), Type IV compression molded plaque

ASTM D638

4,770 psi

33 MPa

Tensile Strength at Break

23 °C, 2.0 in/min (50.8 mm/min), Type IV compression molded plaque

ASTM D638

4,100 psi

28 MPa

Tensile Elongation at Yield

23 °C, 2.0 in/min (50.8 mm/min), Type IV compression molded plaque

ASTM D638

6.1 %

6.1 %

Tensile Elongation at Break

23 °C, 2.0 in/min (50.8 mm/min), Type IV compression molded plaque

ASTM D638

16.5 %

16.5 %

Flexural Modulus

Secant at 1 % of Elongation - 0,051 in/min (1,3 mm/min)

ASTM D790A

256,500 psi

1,769 MPa

Secant at 2 % of Elongation - 0,051 in/min (1,3 mm/min)

214,700 psi

1,481 MPa

Izod Notched Impact Strength

23 °C, 1/8 in (3,2 mm)

ASTM D256

0.66 ft-lbf/in

35 J/m

Shore Hardness

Escala D, 15 s

ASTM D2240

68.0

68.0

OTHER PROPERTIES

TEST METHOD

VALUES, ENGLISH UNITS

VALUES, INTERNATIONAL UNITS

Vicat Softening Temperature - VST

10 N (1 kg), 50 °C/h

ASTM D1525

262 °F

128 °C

Heat Deflection Temperature - HDT

66 psi (0,455 MPa), Method A

ASTM D648

179 °F

82 °C

The data presented here is true and accurate to the best of our knowledge. Likewise, the values are nominal and should not be taken as minimum or maximum specifications. No warranty, express or implied, is made regarding resin performance. The customer must validate these properties according to his own evaluations on his machine and in his laboratory.

REGULATORY COMPLIANCE

This resin complies with the following FDA regulation: 21 CFR 177.1520: Olefinic Polymers. This regulation describes polyolefin resins that can be used safely for food packaging and preservation at low temperatures and at ambient temperatures. This resin is not designed for use in medical applications and should not be used in such applications.