

barex® 210 Injection Grade

Acrylonitrile Copolymer

INEOS Barex

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Barex Injection Grade resin is an impact modified acrylonitrile-methyl acrylate copolymer with excellent gas barrier and a wide range of chemical resistance. It can easily be used in injection molding, injection blow molding, and injection stretch blow molding of high barrier containers and chemically resistant parts.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
Availability	• Europe • North America
Additive	• Impact Modifier
Features	• Barrier Resin • Food Contact Acceptable • Chemical Resistant • Impact Modified
Uses	• Containers • Food Packaging • Medical/Healthcare Applications
Agency Ratings	• EU 2002/96/EC (WEEE) • FDA Food Contact, Unspecified Rating • EU Food Contact, Unspecified Rating • USP Class VI
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Blow Molding • Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.16	1.15 g/cm ³	ASTM D792
Apparent (Bulk) Density	0.66 g/cm ³	0.66 g/cm ³	ASTM D1895
Melt Mass-Flow Rate (MFR) (200°C/21.6 kg)	12 g/10 min	12 g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	9500 psi	65.5 MPa	ASTM D638
Tensile Elongation (Yield)	4.0 %	4.0 %	ASTM D638
Flexural Modulus	480000 psi	3310 MPa	ASTM D790
Flexural Strength (Yield)	14000 psi	96.5 MPa	ASTM D790

Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Oxygen Permeability (73°F (23°C), 100% RH)	0.80 cm ³ ·mil/ 100in ² /atm/24 hr	0.31 cm ³ ·mm/m ² /atm/ 24 hr	ASTM D3985
Water Vapor Transmission Rate	5.0 g·mil/ 100in ² /atm/24 hr	2.0 g·mm/m ² /atm/24 hr	ASTM F1249

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	1.5 ft·lb/in	80 J/m	ASTM D256

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	60	60	ASTM D785

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	166 °F	74.4 °C	
264 psi (1.8 MPa), Unannealed	151 °F	66.1 °C	
CLTE - Flow (68 to 176°F (20 to 80°C))	3.7E-5 in/in/°F	6.7E-5 cm/cm/°C	ASTM D696
Specific Heat (68°F (20°C))	0.320 Btu/lb/°F	1340 J/kg/°C	ASTM C351
Thermal Conductivity	1.7 Btu·in/hr/ft ² /°F	0.25 W/m/K	ASTM C177

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (60°, 10.0 mil (254 µm))	120	120	ASTM D2457
Transmittance (10.0 mil (254 µm))	92.5 %	92.5 %	ASTM D1003
Haze (10.0 mil (254 µm))	2.7 %	2.7 %	ASTM D1003
Yellowness Index (0.0100 in (0.254 mm))	2.5 YI	2.5 YI	ASTM D1925



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Additional Information

Yield: 24080 in²-mil/lb

Melt Index, ASTM D1238, 200°C/27.5 lbs: 12 g/10min

Water Vapor Trans Rate, ASTM F1249, 100°F, 90% RH: 5 g-mil/100in²at-d

Nitrogen Permeability, ASTM D3985, 73°F, 100% RH: 0.2 cm³-mil/100 in²-24 hrs-atm

Carbon Dioxide Permeability, ASTM D3985, 73°F, 100% RH: 1.2 cm³-mil/100 in²-24 hrs-atm

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.



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Where to Buy

Supplier

INEOS Barex

Delaware City, DE USA

Telephone: 302-838-3278

Web: <http://www.ineosbarex.com/>

Distributor

Please contact the supplier to find a distributor for barex® 210 Injection Grade

