TOPAS® 8007F-600

Cyclic Olefin Copolymer

Topas Advanced Polymers, Inc.

Message:

Product Description
TOPAS 8007F-600 is a new robust film extrusion grade designed for blending with polyethylene (PE). It is an improved clarity amorphous resin with high stiffness, moisture barrier, chemical resistance, thermoformability and purity for food and general purpose applications. It is used in blends in both cast and blown processes, and in monolayer and multilayer products. Leading film applications include twist wrap, forming webs, protective packaging, shrink films and labels, and easy tear packaging. Industrial uses include formed PE and PP sheet products. For property enhancement at elevated temperatures, higher glass transition temperature (Tg) grades of TOPAS are recommended.
Selected Applications
Forming films (header bags, etc.)
Protective packaging
Shrink films and labels
Twist films
Decorative sheet
Food packaging
Food contact
Leading Attributes
Clarity, forming, barrier, purity, halogen-free
Stiffness for downgauging, improved forming
High shrink, low stress, gloss, toughness
Outstanding deadfold, clean cutting
Stiffness, chemical resistance, forming, even draw
Not manufactured with BPA, phthalates, or halogens
Broad regulatory compliance
Related Grades for Packaging and Film Extrusion
TOPAS 8007F-04 - ultimate clarity extrusion grade
TOPAS 8007F-400 - robust extrusion grade especially for PE blends

General Information	
Features	High purity
	Moisture proof
	Rigidity, high
	Highlight
	Copolymer
	Good chemical resistance
	Good toughness
	Compliance of Food Exposure
	High shrinkage
	General
	BPA-free
	amorphous
	Halogen-free
	Medium transparency
Uses	Packaging
	Films

	Label
	Multilayer film
	Mixing
	cast film
	Sheet
	Food packaging
	General
Agency Ratings	DMF 12132
	FDA FCN 405
	Europe 10/1/2011 12:00:00 AM
Forms	Particle
Processing Method	Film extrusion
	Blow film
	cast film
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Density	1.01	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	1.8	g/10 min	ISO 1133
230°C/2.16 kg	10	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR)			ISO 1133
190°C/2.16 kg	2.00	cm³/10min	ISO 1133
230°C/2.16 kg	11.0	cm³/10min	ISO 1133
Water Absorption (Saturation, 23°C)	0.010	%	ISO 62
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	70	µm	
Tensile Modulus			ISO 527-3/1
MD: 70 µm, cast film	2100	MPa	ISO 527-3/1
TD: 70 µm, cast film	1700	MPa	ISO 527-3/1
Tensile Stress			ISO 527-3/50
MD: Fracture, 70 µm, cast film	55.0	MPa	ISO 527-3/50
TD: Fracture, 70 µm, cast film	50.0	MPa	ISO 527-3/50
Tensile Elongation			ISO 527-3/50
MD: Fracture, 70 µm, cast film	3.4	%	ISO 527-3/50
TD: Fracture, 70 µm, cast film	3.4	%	ISO 527-3/50
Water Vapor Transmission Rate (70 µm, 23°C, Cast Film, 85% RH)	0.10	g·mm/m²/atm/24 hr	ASTM F1249
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	78.0	°C	ISO 11357-2

Optical	Nominal Value	Unit	Test Method
Gloss (60, 70.0 µm, cast film)	> 100		ISO 2813
Haze (70.0 µm, cast film)	> 2.0	%	ISO 14782

Extrusion	Nominal Value	Unit
Feed part of extruder	20 - 60	°C
Extruder Screw L/D Ratio	> 28:1	
Cylinder Zone 1 Temp.	200 - 210	°C
Cylinder Zone 2 Temp.	200 - 210	°C
Cylinder Zone 3 Temp.	200 - 210	°C
Cylinder Zone 4 Temp.	200 - 210	°C
Die Temperature	220 - 230	°C

Extrusion instructions

Head pressure: P > 140 bar / 2000 psi; Fine screen packs as neededScrew speed: RPM > 50% nominalScrew design:
Multi-purpose or barrier screw with mixing section
Screw diameter > 60 mm / 2.5 inch
Grooved Feed: Hot temperature: 120°C (248°F)

Recommended distributors for this material

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