TOPAS® 9506F-500

Cyclic Olefin Copolymer

Polyplastics Co., Ltd.

Message:

Product Description
TOPAS 9506F-500 is a low glass transition film extrusion blending grade. It is a medium clarity resin with high stiffness, moisture barrier, chemical resistance, thermoformability and purity for food and healthcare applications. It is used in monolayer blended cast applications, and in coextrusions in both cast and blown processes, for a variety of film and sheet products. Leading applications include shrink film and labels where shrinkage at moderate temperatures is desired. For property enhancement at elevated temperatures, higher glass transition temperature (Tg) grades of TOPAS are recommended.
Selected Applications
Shrink films and labels
Thermoformed PE films
Food packaging
Healthcare and food contact
Leading Attributes
High shrink, low stress, gloss, clarity, toughness
Improved material distribution, stiffness, depth
Not manufactured with BPA, phthalates, or halogens
Broad regulatory compliance
Related Grades for Packaging and Film Extrusion
TOPAS 9506F-04 - high clarity extrusion grade

General Information	
Features	High purity
	Moisture proof
	Rigidity, high
	Highlight
	Copolymer
	Good chemical resistance
	Good toughness
	Compliance of Food Exposure
	High shrinkage
	BPA-free
	Halogen-free
	Medium transparency
Uses	Films
	Label
	Mixing
	cast film
	Sheet
	Food packaging
	Medical/nursing supplies
Agency Ratings	FDA FCN 405

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Forms	Particle
Processing Method	Film extrusion Blow film Co-extruded film cast film Thermoforming

Physical	Nominal Value	Unit	Test Method
Density	1.02	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.90	g/10 min	ISO 1133
230°C/2.16 kg	5.5	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR)			ISO 1133
190°C/2.16 kg	1.00	cm³/10min	ISO 1133
230°C/2.16 kg	6.00	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	1700	MPa	ISO 527-3/1
TD: 70 µm, cast film	2000	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	55.0	MPa	ISO 527-3/50
Tensile Elongation			ISO 527-3/50
MD: Fracture, 70 µm, cast film	2.9	%	ISO 527-3/50
TD: Fracture, 70 µm, cast film	3.6	%	ISO 527-3/50
Dart Drop Impact (70 µm, cast film)	< 36	g	ISO 7765-1
Elmendorf Tear Strength			ISO 6383-2
MD: 70 µm, cast film	2.3	N	ISO 6383-2
TD: 70 µm, cast film	2.4	N	ISO 6383-2
Water Vapor Transmission Rate (70 µm, 23°C, Cast Film, 85% RH)	0.11	g·mm/m²/atm/24 hr	ASTM F1249
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	65.0	°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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