

Description

Total Petrochemicals PPC 3660 is a heterophasic copolymer polypropylene with a Melt Flow Index of 1.3 g/min for the cast extrusion of films with superior mechanical properties and retort-able.

Polypropylene PPC 3660 is intended for applications like food packaging, lamination films, stand up pouches, heat-sterilized packaging,...

Characteristics

	Method	Unit	Typical Value
Rheological properties			
Melt Flow Index 230°C/2.16 kg	ISO 1133	g/10 min	1.3
Mechanical properties			
Tensile Strength at Yield	ISO 527-2	MPa	24
Elongation at Yield	ISO 527-2	%	11
Tensile modulus	ISO 527-2	MPa	1300
Flexural modulus	ISO 178	MPa	1200
Izod Impact Strength (notched)	ISO 180	kJ/m ²	
At 23°C			>50
At (-20)°C			7
Charpy Impact Strength (notched) at 23°C	ISO 179	kJ/m ²	
At 23°C			>50
At (-20)°C			8
Hardness Rockwell - R-scale	ISO 2039-2		77
Thermal properties			
Melting Point	ISO 3146	°C	165
Vicat Softening Point	ISO 306	°C	
50N-50°C per hour			70
10N-50°C per hour			147
Heat Deflection Temperature	ISO 752	°C	
1.80 MPa – 120°C per hour			50
0.45 MPa – 120°C per hour			90
Other physical properties			
Density	ISO 1183	g/cm ³	0.905
Bulk Density	ISO 1183	g/cm ³	0.525

Additional Properties: typical film properties

	Method	Unit	Typical Value
Optical properties			
Gloss 45°	ASTM D 2457		15
Haze	ISO 14782	%	65
Mechanical properties			
Tensile Strength at Yield MD / TD *	ISO 527-3	MPa	20 / 18
Tensile Strength at Break MD / TD *	ISO 527-3	MPa	60 / 34
Tensile Elongation at Break MD / TD *	ISO 527-3	%	500 / 600
Dart Impact	ISO 7765-1	g	580
Elmendorf MD / TD *	ISO 6383-2	N/mm	11 / 235

* MD : Machine Direction TD : Transverse Direction

Properties measured on a 50µm thick film produced on a cast film line following TOTAL internal conditions.

When considering these film properties, it should be taken into consideration that film properties are strongly dependent from processing conditions.