

**TOTAL PETROCHEMICALS Polyethylene FE 8004****Low Density Polyethylene**

TOTAL PETROCHEMICALS Web

<b>General</b>			
Material Status	• Commercial: Active		
Literature <sup>1</sup>	• Technical Datasheet (English)		
Search for UL Yellow Card	• TOTAL PETROCHEMICALS		
Availability	• Europe		
Additive	• Antiblock (500 ppm)	• Slip (650 ppm)	
Features	• Antiblocking	• Slip	
Uses	• Bags	• Food Packaging	• Packaging
	• Consumer Applications	• Industrial Applications	• Shrink Wrap
	• Film	• Laminates	
Agency Ratings	• EC 1907/2006 (REACH)		
Forms	• Pellets		
Processing Method	• Blown Film	• Coextrusion	
<b>Physical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Density			
--	0.924	g/cm <sup>3</sup>	ISO 1183
--	924	kg/m <sup>3</sup>	ISO 1183 <sup>2</sup>
Melt Mass-Flow Rate (MFR) (190° C/2.16 kg)	0.80	g/10 min	ISO 1133
Melt volume-flow rate (190°C/2.16 kg)	1.00	cm <sup>3</sup> /10min	ISO 1133 <sup>2</sup>
Water Absorption (Saturation)	0.010	%	ISO 62 <sup>2</sup>
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile modulus	240	MPa	ISO 527-2 <sup>2</sup>
Tensile Stress (Yield)	12.0	MPa	ISO 527-2 <sup>2</sup>
Tensile Strain (Yield)	15	%	ISO 527-2 <sup>2</sup>
Nominal strain at break	> 50	%	ISO 527-2 <sup>2</sup>
<b>Films</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Stress			ISO 527-3
MD : Yield, 40 µm, Blown Film	12.5	MPa	
TD : Yield, 40 µm, Blown Film	12.5	MPa	
MD : Break, 40 µm, Blown Film	28.0	MPa	
TD : Break, 40 µm, Blown Film	24.0	MPa	
Tensile Elongation			ISO 527-3
MD : Break, 40 µm, Blown Film	370	%	
TD : Break, 40 µm, Blown Film	570	%	

Dart Drop Impact (40 µm, Blown Film)	120 g	ISO 7765-1
<b>Thermal</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (1.8 MPa)	41.0 °C	ISO 75-2 <sup>2</sup>
Vicat Softening Temperature		
--	99.0 °C	ISO 306
50°C/h, B (50N)	98.0 °C	ISO 306 <sup>2</sup>
Melting Temperature (DSC)		
--	111 °C	ISO 3146
-- <sup>3</sup>	114 °C	ISO 11357-3 <sup>2</sup>
CLTE - Flow	0.00018 cm/cm/°C	ISO 11359-2 <sup>2</sup>
<b>Electrical</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Surface resistivity	1.0E+14 ohm	IEC 60093 <sup>2</sup>
Volume resistivity	> 1.0E+13 ohm·m	IEC 60093 <sup>2</sup>
Relative Permittivity (100 Hz)	2.00	IEC 60250 <sup>2</sup>
Dissipation Factor		IEC 60250 <sup>2</sup>
100 Hz	0.00020	
1 MHz	0.00020	
Comparative tracking index	600	IEC 60112 <sup>2</sup>
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Burning Behav. at 1.6mm nom. thickn. (1.60 mm)	HB	ISO 1210 <sup>2</sup>
Oxygen index	18 %	ISO 4589-2 <sup>2</sup>
<b>Additional Information</b>		
The value listed as Melting Temperature, ISO 3146, was tested in accordance with ISO 11357.		
Elmendorf, ISO 6383-2, MD, Blown Film, 40 µm: 53 N/mm		
Elmendorf, ISO 6383-2, TD, Blown Film, 40 µm: 47 N/mm		
Haze, ISO 14782, Blown Film, 40 µm: 12%		
<b>Extrusion</b>	<b>Nominal Value Unit</b>	
Cylinder Zone 1 Temp.	160 to 200 °C	
Cylinder Zone 2 Temp.	160 to 200 °C	
Cylinder Zone 3 Temp.	160 to 200 °C	
Cylinder Zone 4 Temp.	160 to 200 °C	
Cylinder Zone 5 Temp.	160 to 200 °C	
<b>Notes</b>		
<sup>1</sup> 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.		
<sup>2</sup> Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
<sup>3</sup> 10 °C/min		