Technical Data Sheet

TIFLEX™ 4350G Polyethylene Resin

Description

TIFLEX™ 4350G Polyethylene Resin is a linear low-density polyethylene (m-LLDPE like) designed for high quality blown film applications requiring a combination of excellent optics and toughness. For high transparency, it is recommended to add 20% LDPE to this resin.

Main Characteristics

- High gloss
- Transparency
- Excellent printability

Applications

- Collation shrink
- Specialty packaging applications
- Artificial turf

Complies with

- EU, No 10/2011
- U.S. FDA FCN 741
- U.S. FDA FCN 1539

Consult the regulations for complete details.

Typical Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[1]
Density	0.925	g/cm³	0.925	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	1.5	g/10 min	1.5	g/10 min	ASTM D1238
Films	**Nominal Value**	**Unit (English)**	**Nominal Value**	**Unit (SI)**	**Test Method**
Film Puncture Energy					Dow Method
2.0 mil (50 pm)	25.7	in•lb	2.9	J	
2.0 mil (50 pm)[2]	28.3	in•lb	3.2	J	
Film Puncture Force					Dow Method
2.0 mil (50 pm)	12.7	lbf	56.5	N	
2.0 mil (50 pm)[2]	13.6	lbf	60.5	N	

1. ASTM: American Society for Testing and Materials
2. (+20% LDPE)

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

Typical Properties (Cont.)

Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Strength					ASTM D882
MD: Yield, 2.0 mil (50 pm)	1350	psi	9.3	MPa	
MD: Yield, 2.0 mil (50 pm) [2]	1300	psi	9.0	MPa	
TD: Yield, 2.0 mil (50 pm)	1860	psi	12.8	MPa	
TD: Yield, 2.0 mil (50 pm) [2]	1830	psi	12.6	MPa	
MD: Break, 2.0 mil (50 pm)	5480	psi	37.8	MPa	
MD: Break, 2.0 mil (50 pm) [2]	5000	psi	34.5	MPa	
TD: Break, 2.0 mil (50 pm)	4840	psi	33.4	MPa	
TD: Break, 2.0 mil (50 pm) [2]	4500	psi	31.0	MPa	
Tensile Elongation					ASTM D882
MD: Break, 2.0 mil (50 pm)	670	%	670	%	
MD: Break, 2.0 mil (50 pm) [2]	670	%	670	%	
TD: Break, 2.0 mil (50 pm)	660	%	660	%	
TD: Break, 2.0 mil (50 pm) [2]	680	%	680	%	
Dart Drop Impact					ASTM D1709A
2.0 mil (50 pm)	230	g	230	g	
2.0 mil (50 pm) [2]	230	g	230	g	
Elmendorf Tear Strength					ASTM D1922
MD: 2.0 mil (50 pm)	330	g	330	g	
MD: 2.0 mil (50 pm) [2]	240	g	240	g	
TD: 2.0 mil (50 pm) [2]	390	g	390	g	
TD: 2.0 mil (50 pm)	820	g	820	g	
Optical	**Nominal Value**	**Unit (English)**	**Nominal Value**	**Unit (SI)**	**Test Method**
Gloss					ASTM D2457
45°, 1.97 mil (50.0 pm)	36		36		
45°, 1.97 mil (50.0 pm) [2]	79		79		
Haze					ASTM D1003
1.97 mil (50.0 pm)	22.5	%	22.5	%	
1.97 mil (50.0 pm) [2]	5.4	%	5.4	%	
Extrusion	**Nominal Value**	**Unit (English)**	**Nominal Value**	**Unit (SI)**	**Test Method**
Melt Temperature	428	°F	220	°C	

Extrusion Notes

Fabrication Conditions For Blown Film:

- Melt Temperature: 220°C
- Die Diameter: 150 mm.
- Blow-Up Ratio: 2.5 to 1