DOW™ LDPE 421E
Low Density Polyethylene Resin

Overview

DOW LDPE™ 421E Low Density Polyethylene Resin can be readily extruded using conventional blown film techniques utilizing melt temperatures between 160 and 195 °C. This resin, when properly fabricated, shows excellent mechanical properties, consistent with its higher density (high stiffness) when compared to standard resins, whilst maintaining very high clarity and gloss. It shows good draw down properties and processability. This product does not contain slip nor antiblock additives.

Regulations:

DOW LDPE 421E Low Density Polyethylene Resin should comply with:

- U.S. FDA 21 CFR 177.1520(c)2.2
- EU, No 10/2011
- Consult the regulations for complete details.

Applications:

- High clarity lamination films.
- Packaging of soft products such as hand tissues, toilet tissues, feminine hygiene products.
- High clarity tissues overwrap.
- Produce bags.
- Food packaging films.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.930	g/cm³	0.930	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	3.2	g/10 min	3.2	g/10 min	ISO 1133
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					ISO 527-3
2% Secant, MD : 2.0 mil (50 µm)	42100	psi	290	MPa	
2% Secant, TD : 2.0 mil (50 µm)	36300	psi	250	MPa	
Tensile Stress					ISO 527-3
MD : Yield, 2.0 mil (50 µm)	1600	psi	11.0	MPa	
TD : Yield, 2.0 mil (50 µm)	1600	psi	11.0	MPa	
MD : Break, 2.0 mil (50 µm)	2760	psi	19.0	MPa	
TD : Break, 2.0 mil (50 µm)	2180	psi	15.0	MPa	
Tensile Elongation					ISO 527-3
MD : Break, 2.0 mil (50 µm)	420	%	420	%	
TD : Break, 2.0 mil (50 µm)	550	%	550	%	
Dart Drop Impact (2.0 mil (50 µm))	100	g	100	g	ISO 7765-1/A
Elmendorf Tear Strength					ASTM D1922
MD : 2.0 mil (50 µm)	500	g	500	g	
TD : 2.0 mil (50 µm)	350	g	350	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	216	°F	102	°C	ASTM D1525

Extrusion	Nominal Value	(English)	Nominal Value	(SI)
Melt Temperature	320 to 383	°F	160 to 195	°C
Extrusion Notes				
Blow up ration 1:2.5				