



DOWLEX™ 2045S

Polyethylene Resin

Overview

DOWLEX™ 2045S Polyethylene Resin is designed for the production of high quality silage stretch film. Films made from this resin show a combination of excellent toughness and tear resistance. The product also delivers very good processability on conventional LLDPE machinery.

Note: DOWLEX 2045S Polyethylene Resin should comply with:
U.S. FDA 177.1520
Consult the regulations for complete details.

Applications:

- Silage stretch film
- Stretch films for pallets
- Thin gauge industrial & consumer films

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.920 g/cm ³	0.920 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ISO 1133
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	0.98 mil	25 µm	
Film Puncture Energy ¹ (0.98 mil (25 µm))	7.97 in·lb	0.900 J	Dow Method
Film Puncture Force ¹ (0.98 mil (25 µm))	4.72 lbf	21.0 N	Dow Method
Tensile Modulus ²			ISO 527-3
2% Secant, MD : 0.98 mil (25 µm), Blown Film	25800 psi	178 MPa	
2% Secant, TD : 0.98 mil (25 µm), Blown Film	32600 psi	225 MPa	
Tensile Stress ²			ISO 527-3
MD : Yield, 0.98 mil (25 µm), Blown Film	1230 psi	8.50 MPa	
TD : Yield, 0.98 mil (25 µm), Blown Film	1310 psi	9.00 MPa	
MD : Break, 0.98 mil (25 µm), Blown Film	4350 psi	30.0 MPa	
TD : Break, 0.98 mil (25 µm), Blown Film	3340 psi	23.0 MPa	
Tensile Elongation ²			ISO 527-3
MD : Break, 0.98 mil (25 µm), Blown Film	520 %	520 %	
TD : Break, 0.98 mil (25 µm), Blown Film	620 %	620 %	
Elmendorf Tear Strength ²			ASTM D1922
MD : 0.98 mil (25 µm), Blown Film	310 g	310 g	
TD : 0.98 mil (25 µm), Blown Film	630 g	630 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	217 °F	103 °C	ISO 306/A
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	374 to 464 °F	190 to 240 °C	

Extrusion Notes

Fabrication Conditions For Tubular Film Extrusion:

- Die Gap: 1.6 - 2.5 mm
- Melt Temperature: 190 to 240°C.
- Blow-Up Ratio Range: 1.50 to 3:1.
- Recommended Gauge Range: 10 to 150 µm.

Notes

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

¹ Blown Film, BUR 2.5

² BUR 2.5

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