

Dow DOWLEX™ 2045G

DOWLEX™ 2045G resin is designed for the production of a wide variety of industrial and consumer films (though it is not recommended for silage stretch film). The product also delivers very good processability on conventional LLDPE machinery.

Physical Properties	Metric	English	Comments
Density	0.920 g/cc	0.0332 lb/in ³	ASTM D792
Thickness	50.8 microns	2.00 mil	
Melt Flow	1.0 g/10 min	1.0 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	10.89 MPa	1579 psi	ASTM D882
Film Tensile Strength at Yield, TD	12.29 MPa	1783 psi	ASTM D882
Film Elongation at Break, MD	827 %	827 %	ASTM D882
Film Elongation at Break, TD	889 %	889 %	ASTM D882
Secant Modulus, MD	0.1944 GPa	28.20 ksi	2% Secant; ASTM D882
Secant Modulus, TD	0.2326 GPa	33.74 ksi	2% Secant; ASTM D882
Impact	235	235	[ft-lbf/in ³]; Puncture Resistance; Dow Method
	4176	4176	[ft-lbf/in ³]; Toughness MD; ASTM D882
	4241	4241	[ft-lbf/in ³]; Toughness TD; ASTM D882
Elmendorf Tear Strength MD	902 g	902 g	ASTM D1922

Elmendorf Tear Strength TD	1200 g	1200 g	ASTM D1922
Elmendorf Tear Strength, MD	17.8 g/micron	451 g/mil	ASTM D1922
Elmendorf Tear Strength, TD	23.6 g/micron	600 g/mil	ASTM D1922
Dart Drop Test	288 g	0.635 lb	Method A; ASTM D1709
Film Tensile Strength at Break, MD	55.11 MPa	7993 psi	ASTM D882
Film Tensile Strength at Break, TD	49.81 MPa	7224 psi	ASTM D882
Thermal Properties	Metric	English	Comments
Melting Point	122 °C	252 °F	Dow Method (DSC)
Vicat Softening Point	108 °C	226 °F	ASTM D1525
Optical Properties	Metric	English	Comments
Haze	10 %	10 %	ASTM D1003
Gloss	60 %	60 %	45°; ASTM D2457