

Dow DOWLEX™ 2045A

DOWLEX® 2045A Polyethylene blown film extrusion resin is a premier film resin for heavy duty applications. It is utilized where improved thermal stability over a broader range of processing conditions is desired. It complies with U.S. FDA regulation 21 CFR 177.1520 (c) 3.2 for food contact applications. The regulation should be consulted for complete details.

Physical Properties	Metric	English	Comments
Density	0.920 g/cc	0.0332 lb/in³	
Thickness	25.0 microns	0.984 mil	
Melt Flow	1.0 g/10 min @Load 2.16 kg	1.0 g/10 min @Load 4.76 lb	Melt flow ratio I10/I2 is 8.

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	26.2 MPa	3800 psi	Molded property
Film Tensile Strength at Yield, MD	10.7 MPa	1550 psi	
Film Tensile Strength at Yield, TD	10.0 MPa	1450 psi	
Tensile Strength, Yield	12.4 MPa	1800 psi	Molded property
Film Elongation at Break, MD	550 %	550 %	
Film Elongation at Break, TD	650 %	650 %	
Elongation at Break	1000 %	1000 %	Molded value
Secant Modulus, MD	0.0103 GPa	1.49 ksi	Film value
Secant Modulus, TD	0.01065 GPa	1.545 ksi	Film value
Elmendorf Tear Strength MD	375 g	375 g	
Elmendorf Tear Strength TD	600 g	600 g	
Elmendorf Tear Strength, MD	15.0 g/micron	381 g/mil	
Elmendorf Tear Strength, TD	24.0 g/micron	610 g/mil	
Dart Drop	11.0 g/micron	279 g/mil	
Film Tensile Strength at Break, MD	57.2 MPa	8300 psi	
Film Tensile Strength at Break, TD	39.3 MPa	5700 psi	

Thermal Properties	Metric	English	Comments
Vicat Softening Point	106 °C	223 °F	

Optical Properties	Metric	English	Comments
Haze	5.0 %	5.0 %	
Gloss	75 %	75 %	45°

Processing Properties	Metric	English	Comments
Processing Temperature	226 °C	439 °F	Film extrusion temperature

Compliance Properties	Metric	English	Comments
FDA	Yes	Yes	See notes for details.