

Oriented Polyester

DESCRIPTION:

Oriented Polyester films are rigid plastics that are strong, durable, dimensionally stable, and have anti-curl properties. They are suitable for graphics, packaging, electrical and industrial applications. Oriented Polyester films are available in super-clear to clear matte, and

smooth to matte surfaces. Available in sheets and rolls with widths from .5" to 92" with 3", 6", and 10" cores. Gauges are available from .00032" to .014", and special surface treatments include ink adhesion, slip, and anti-static.

CHARACTERISTICS:

- Easily printed with water or solvent based inks using flexography, offset lithography, and screen printing.
- Can be folded, sheeted, die cut, grommited, glued, and sewn.
- Excellent chemical and abrasion resistance and temperature resistance.
- General inertness and free of additives.

TECHNICAL DATA:

MECHANICAL PROPERTIES	TYPICAL VALUES	TEST CONDITIONS	TEST METHOD-ASTM
TENSILE STRENGTH	MD >20 kg/mm ² TD >20 kg/mm ²	25° C	D-882-64
ELONGATION AT BREAK	MD 100 to 120% TD 100 to 120%	25° C	D-882-84
F-5 VALUE	MD 9.5 kg/mm ² TD 9.5 kg/mm ²	25° C	D-882-64
IMPACT STRENGTH	400 g cm/cm ²	25° C, 25μ film	D-1709-62
TEAR STRENGTH - PROPAGATING	20 g/mil	25° C, 25μ film	D-1922-61
ELMENDORF INITIAL - GRAVES	800 g/mil	25° C, 25μ film	D-1004-66
BURSTING STRENGTH	>5 kg/cm ²	25° C, 25μ film	D-774-63
FOLDING ENDURANCE	10 ⁵ cycle	25° C, 25μ film	D-2176-63
PHYSICAL PROPERTIES			
DENSITY	1.390 to 1.405 g/cm ³	25° C	D-1505-63
MOISTURE ABSORPTION	.05 wt%	23° C, 24 hr	D-570-63
TRANSMISSION RATE:	WATER VAPOR	25 g/m ² /24 hr	25μ film @ 40° C. @ 100% R.H.
	OXYGEN	40 cm ³ /m ² /24 hr	25μ film @ 25° C. @ 1 atm
COEFFICIENT OF FRICTION: FILM/FILM	KINETIC STATIC	CF 0.3 to 0.5	25° C
THERMAL PROPERTIES			
MELTING POINT	280 C°		
SOFTENING POINT	250 C°		
HEAT SHRINKAGE	2.0 %	150° C X 30 min	D-2305-67
SERVICE TEMPERATURE	-70° to +150° C		
SPECIFIC HEAT	0.3 cal g °C	25° C	
COEFFICIENT OF LINEAR THERMAL EXPANSION	3x10 ⁻⁵ cm/cm/°C	30° C to 50° C	D-696-44
COEFFICIENT OF THERMAL CONDUCTIVITY	3x10 ⁻⁴ cal/cm sec °C		
ELECTRICAL PROPERTIES			
DIELECTRIC STRENGTH	7,500 volts/mil	25° C 60hz	D-149-64
DIELECTRIC CONSTANT	3.3	25° C 60hz	D-150-65
DIELECTRIC DISSIPATION	0.0025	25° C 60hz	D-150-65
VOLUME RESISTIVITY	10 ¹⁸ ohm-cm	25° C	D-257-66 & D-2305-67
SURFACE RESISTIVITY	10 ¹² ohm-cm/cm	23° C 80% R.H.	D-257-66

Note: The stated values are typical data and are not specification of guarantee. Transcendia suggests that purchaser confirm product compatibility prior to use of this product. Stated values are believed to be accurate, but all information is presented without guarantee or responsibility on the part of Transcendia.