

PRODUCT INFORMATION

PVOH

PRODUCT DESCRIPTION

M1030 is a hot water-soluble general purpose PVOH film. With high elongation, M1030 performs well in molding and vacuum bag operations. The maximum use temperature is 275 F (135 C). Standard thicknesses are 38 micron (1.5 mil), 51 micron (2.0 mil) and 76 micron (3.0 mil).

PRODUCT PROPERTIES

Typical Properties @ 23°C (73°F) and 50% RH

CHARACTERISTICS	ENGLISH	METRIC
Tensile strength (ASTM D882, ISO 527)	7300 psi	50.3 N/sq mm
Modulus, 100% (ASTM D882, ISO 527)	3400 psi	23.4 N/sq mm
% Elongation (ASTM D882, ISO 527)	450%	450%
Tear resistance (ASTM D882, ISO 527)	140g/mil	5.5 kg/mm
Yield (ASTM D4321) for 38 micron (1.5 mil) film	Na sq in/lb	Na sq m/kg
<i>Values are dependent on moisture content and film thickness</i>		

EQUILIBRIUM MOISTURE CONTENT

CONDITIONS	WEIGHT (%)
@50% RH, 23°C (73°F)	6.0

APPLICATION AND PROCESSING

Properties	GND 15	GND 20	GND 25	GND 30	GND 35	GND 40	GND 50	UNIT	Measuring method
Nominal thickness	15	20	25	30	35	40	50	µm	-
Unit weight	13.7	18.2	22.8	27.3	31.9	36.4	45.5	g/m ²	ISO 4591
Density	0.91	0.91	0.91	0.91	0.91	0.91	0.91	g/cm ³	-
Yield	73.3	54.9	43.9	36.6	31.4	27.5	22.7	m ² /kg	-
Heat-seal strength	1.8	1.8	2.0	2.2	2.3	2.5	2.8	N/15mm	-
Seal range	107-140	107-140	107-140	107-140	107-140	107-140	107-140	°C	-
Coefficient of friction (film/film)	0.35-0.4	0.35-0.4	0.35	0.35	0.35	0.35	0.35	-	ISO 8295
Wettability	36-39	36-39	36-39	36-39	36-39	36-39	36-39	mN/m	ISO 8296
Haze	2.0	2.4	3.0	3.0	3.1	3.2	3.5	%	ASTM D 1003
Tensile strength: machine direction transverse direction	130 270	130 310	130 330	130 330	130 330	130 330	130 330	N/mm ² N/mm ²	DIN EN ISO 527-1/-3 DIN EN ISO 527-1/-3
Elongation at break: machine direction transverse direction	180 60	180 50	180 50	190 50	200 50	210 50	220 50	% %	DIN EN ISO 527-1/-3 DIN EN ISO 527-1/-3
Water vapour permeability: 38 °C / 90% rh	10.0	5.0	5.0	4.5	4.0	3.5	2.5	g/m ² *d ±10%	ASTM F 1249

AVAILABILITY

Reel length (m):

Packaging film	Standard length	Up to 6-times standard
GND 15	4,400	26,400
GND 20	3,500	21,000
GND 25	2,800	16,800
GND 30	2,350	14,100
GND 35	2,000	12,000
GND 40	1,750	10,500
GND 50	1,400	8,400

Maximum reel outside diameter (mm):

Core diameter	Standard length	Up to 6-times standard
77 mm	approx. 330	-
152 mm	approx. 360	approx. 800

Max. reel width: 2,000 mm (widths > 2,000 mm on request)