



JG Summit Petrochemical Corporation

EVALENE®

POLYPROPYLENE

Property	ASTM Test Method	Unit	BLOW MOLDING			INJECTION MOLDING								FILM								
			PRB0201	PHY0171	PHY0221	PHY0351	PHJ0501	PHJ0801	PHJ1201	PHJ1202	PHJ1502	PHJ4501	PRJ1101	PRJ1501	PHF0221	PHF0301	PHF0701	PHF0702	PHF1001	PHF1002		
Melt Flow, 230°C/2.16 kg	D1238	g/10 min	2.0	1.7	2.2	3.5	5.0	8.0	12.0	12.0	15.0	45.0	11.0	15.0	2.2	3.0	7.0	7.0	10.0	10.0		
Tensile Yield Strength, 50 mm/min ⁽¹⁾	D638	MPa	30	37	36	35	38	27	38	33	34	38	33	30	35	36	35	32	35	35		
Elongation at Yield, 50 mm/min ⁽¹⁾	D638	%	26	18	21	22	20	22	18	22	20	18	26	25	22	20	20	25	21	20		
Tensile Modulus, 1% Secant, 5 mm/min ⁽¹⁾	D638	MPa	1100	1550	1400	1400	1590	1300	1600	1300	1250	1700	1200	1120	1400	1500	1470	1150	1400	1320		
Flexural Modulus, 1% Secant, 1.3 mm/min ⁽¹⁾	D790A	MPa	1000	1450	1340	1200	1670	1100	1400	1100	1200	1400	1100	1090	1270	1400	1400	1000	1280	1120		
Rockwell Hardness ⁽¹⁾	D785	-	R76	R101	R100	R98	R100	R99	R105	R98	R99	R105	R90	R87	R97	R99	R101	R91	R98	R98		
Notched Izod Impact Strength, 23°C ⁽¹⁾	D256	J/m	75	30	28	26	30	25	30	27	25	20	50	45	30	33	30	28.5	22	20		
Heat Deflection Temperature, 0.455 MPa ⁽¹⁾	D648	°C	80	99	83	85	102	98	106	90	100	100	84	78	89	91	100	90	90	100		
Melting Temperature, DSC, 10°C/min, 2nd heating	D3418	°C	145	162	163	162	163	163	163	163	163	163	145	145	163	162	163	163	163	163		
(1) Tested from injection molded specimens according to ASTM D4101.	Special Features		high clarity, hot fill	high tenacities		high throughput	fast cycle, high modulus & toughness	easy processing, high gloss	faster cycle, high modulus, warp resistance	high gloss, fast cycle	excellent processability, high gloss	good color and stiffness-impact strength balance	high clarity and gloss	easy processability, high clarity	stretchability, transparency		high clarity, easy processing	high clarity, high toughness	good clarity, excellent openability	high clarity, excellent openability		
	Typical Applications		food, cosmetics & medicine packaging, thermoforming applications	jumbo bags, geotextiles, tarpaulin, strapping	woven bags, nets, strapping, ropes	woven bags, tarpaulin, furniture, ropes	furniture, pallets	houseware, containers, closures, toys					Thin-wall Injection Molded (TWIM) articles, disposable containers	houseware, containers		bi-axially oriented	cast	inflation (8-10, -20µ)	inflation (>10 -20µ)	inflation (>25µ)	garment bags, cigarette packaging, adhesive tape, food packaging	food/snack packaging

Recommended Processing Conditions

Melt Temperature, °C	230 - 250	210 - 230	210 - 230	210 - 230	200 - 220	200 - 220	200 - 220	200 - 220	200 - 220	220 - 250	220 - 250	220 - 250	230 - 240	220 - 230	210 - 230	195 - 210	195 - 210	195 - 210
Mold/Chill Roll Temp., °C	20 - 40	-	-	-	20 - 40	20 - 40	20 - 40	20 - 40	20 - 40	20 - 40	20 - 40	20 - 40	20 - 25	20 - 25	25 - 30	25 - 30	25 - 30	25 - 30

Conversions:

MPa x 10.2 = kg/cm²
 MPa x 1.45 = psi
 Kg-cm/cm² x 9.81 = J/m
 kJ/m² x 10.2 = J/m (only if dimensions under notch are 3.2 x 10.16 mm)

Polypropylene homopolymer grades have densities of around 905 kg/m³. Random copolymer grades have densities of around 900 kg/m³.

All EVALENE PP grades comply with FDA

Since the conditions and circumstances in which the polymer may be used are beyond our control, JG Summit Petrochemical Corporation does not accept any liability regarding loss and damage which may result directly or indirectly from the use of this information.