Polypropylene

Polypropylene Film & Sheet

Polypropylene combines low density, chemical resistance, and live-hinge fatigue performance in a substrate that prints, folds, and converts cleanly. K&R stocks corona-treated print-grade polypropylene for binders, packaging, and signage, plus untreated grades for industrial fabrication.

Applications

- Binders, folders, presentation covers, and tabbed dividers
- Live-hinge boxes, enclosures, and clamshells
- Packaging: trays, lids, blister packs
- Signage: indoor and outdoor printed graphics
- Automotive interior components
- Food-contact applications (FDA-compliant grades)
- Industrial fabrication: chemical-resistant parts

Features & Benefits

Low specific gravity (0.90) — highest yield per pound of common substrates.

Excellent chemical resistance to acids, bases, alcohols, and most solvents.

Outstanding live-hinge fatigue resistance — bends repeatedly without cracking.

Corona-treated grades print cleanly via toner, indigo, inkjet, screen, and offset.

Higher service temperature than polyethylene (continuous to 200°F).

FDA-compliant grades available for direct food contact.

Cleanly fabricates by die-cutting, scoring, folding, and ultrasonic welding.

Print & Process Compatibility

Toner ✓ (treated) · HP Indigo ✓ (treated) · UV Inkjet ✓ (treated) · Solvent Inkjet ✓ (treated) · Screen ✓ (treated) · Offset ✓ (treated)

AVAILABLE SURFACES, FINISHES & GAUGES

Surface / Finish	Description	Stock Gauges
Corona-Treated Matte	Print-grade polypropylene with corona surface treatment for toner, indigo, inkjet, screen, and offset adhesion.	.010, .015, .020, .030
Natural / Translucent	Untreated grade for fabrication and bonding applications.	.020 – .250
Color PP	Solid color stock and PMS-matched custom colors available.	Custom
Live-Hinge Grade	Engineered for repeated folding without crack propagation.	Custom

TYPICAL PROPERTIES

Property	Typical Value	Test Method
Physical		
Specific Gravity	0.90 – 0.91	ASTM D 792
Water Absorption (24 hr)	<0.02 %	ASTM D 570

Property	Typical Value	Test Method
Hardness, Rockwell R	85 – 110	ASTM D 785
Mechanical		
Tensile Strength at Yield	4,500 – 5,500 psi	ASTM D 638
Tensile Elongation at Break	100 – 600 %	ASTM D 638
Flexural Modulus	200,000 – 250,000 psi	ASTM D 790
Izod Impact (notched, 73°F)	0.5 – 2.0 ft-lb/in	ASTM D 256
Thermal		
Continuous Service Temperature	Up to 200°F (93°C)	—
Vicat Softening Temperature	300°F (150°C)	ASTM D 1525
Heat Deflection Temp. (66 psi)	210°F (99°C)	ASTM D 648
Melt Flow Rate	2 – 12 g/10 min (varies by grade)	ASTM D 1238
Print / Surface		
Dyne Level (corona-treated)	≥ 38 dynes/cm	ASTM D 2578
Recommended Treatment Lifespan	Print within 30 days of treatment	—

Properties reported here are typical of average lots. K&R Plastics, Inc. and its manufacturers make no representation or warranty that the material in any particular shipment will conform exactly to the values given. Unless otherwise noted, all tests run at 23°C (73°F) and 50% relative humidity. Job-specific qualification recommended for production runs — request a sample.