

The highest impact strength of any thermoplastic, combined with an extremely low coefficient of friction and outstanding abrasion resistance. Self-lubricating and virtually inert to most chemicals. FDA/USDA compliant for direct food contact applications.

STOCK AVAILABILITY

Plastic-Craft maintains extensive inventory across a wide range of standard and specialty sizes in sheets, rods, tubes, and custom profiles. Most orders ship from stock — contact us for immediate availability.

KEY HIGHLIGHTS

- Highest impact of any thermoplastic
- Extremely low coefficient of friction
- Outstanding abrasion resistance
- Self-lubricating & non-stick
- FDA / USDA compliant
- ✓ Lightest engineering plastic — floats in water (SG 0.94)

COMMON APPLICATIONS

- Conveyor liners & guides
- Wear strips & bumpers
- Chain guides & sprockets
- Hopper & chute liners
- Marine dock fenders
- Food processing equipment
- Truck bed liners

GRADES AVAILABLE

- Virgin (natural white)
- Reprocessed (green/black)
- FDA-compliant
- Anti-static
- UV-stabilized
- Oil-filled

MATERIAL PROPERTIES — TYPICAL VALUES

PROPERTY	ASTM	TYPICAL VALUE	UNITS
PHYSICAL			
Specific Gravity	D792	0.94	—
Water Absorption, 24h	D570	< 0.01	%
Molecular Weight	—	3 – 6 × 10 ⁶	g/mol
MECHANICAL			
Tensile Strength, Ultimate	D638	5,500	psi (38 MPa)
Tensile Modulus	D638	100,000	psi (690 MPa)
Elongation at Break	D638	300	%
Flexural Modulus	D790	100,000	psi (690 MPa)
Compressive Strength (10%)	D695	3,000	psi (21 MPa)
Impact, Izod Notched	D256	No Break	—
Hardness, Shore D	D2240	62 – 66	Shore D
FRICTION / WEAR			
Coefficient of Friction (Dynamic)	D1894	0.12	vs Steel
Coefficient of Friction (Static)	D1894	0.17	vs Steel
Wear Factor K	D3702	10 × 10 ⁻¹⁰	in ³ ·min/ft·lb·hr
THERMAL			
Heat Deflection @ 264 psi	D648	116	°F (47°C)
Heat Deflection @ 66 psi	D648	203	°F (95°C)
Melting Point	D3418	275	°F (135°C)
CTE (Linear)	D696	11.0 × 10 ⁻⁵	in/in/°F
Thermal Conductivity	C177	2.8	BTU·in/hr·ft²·°F
Max Continuous Service	—	180	°F (82°C)
ELECTRICAL			
Volume Resistivity	D257	> 10 ¹⁸	ohm·cm
Surface Resistivity	D257	> 10 ¹⁵	ohm/sq
Dielectric Strength	D149	2,300	V/mil (90 kV/mm)
Dielectric Constant, 1MHz	D150	2.3	—
FLAMMABILITY			
Horizontal Burn Rate	D635	1.0	in/min (25 mm/min)
UL Flammability Rating	UL 94	HB	—
DURABILITY			
Abrasion Resistance (Taber)	D1044	2 – 5	mg/1000 cycles
Weathering / UV	G154	Fair	UV-stabilized grades avail.

PROCESSING / FABRICATION NOTES: Excellent machinability with standard tooling | Cannot be injection molded — compression molded or ram extruded | Weldable by hot plate or hot gas | Not bondable with adhesives — use mechanical fastening

CHEMICAL RESISTANCE: Outstanding — virtually inert to most chemicals, solvents, fuels, alkalis & dilute acids. **AVOID:** strong oxidizing acids (fuming HNO₃, conc. H₂SO₄) and aromatic/halogenated hydrocarbons at elevated temperatures.

Typical values; not to be used as specifications. Actual values may vary by grade, manufacturer, and processing conditions. Contact Plastic-Craft for grade-specific data.