

PLASTIC-CRAFT Vinyl

Clear Rigid PVC — Polyvinyl Chloride (Type I, Transparent)

845-358-3010
ecom@plastic-craft.com
www.plastic-craft.com

Optically clear rigid PVC sheet combining the chemical resistance and flame retardancy of standard PVC with excellent transparency. A cost-effective alternative to acrylic and polycarbonate for applications requiring chemical resistance, clarity, and self-extinguishing performance in one material.

STOCK AVAILABILITY

Clear sheets in standard thicknesses from 0.010" to 0.500". Cut-to-size service available. Most thicknesses ship from stock.

KEY HIGHLIGHTS

Optically clear transparency
Self-extinguishing (V-0)
Chemical resistant & clear
Lower cost than polycarbonate
Thermoformable
Easy to fabricate

✓ The only clear plastic that is self-extinguishing AND chemically resistant

COMMON APPLICATIONS

Machine guards & shields
Tank sight glasses
Protective face shields
Point-of-purchase displays
Thermoformed covers
Chemical splash guards
Clean room windows

GRADES AVAILABLE

Clear (standard)
Clear UV-stabilized
Tinted (smoke, bronze)
Anti-static
FDA-compliant

MATERIAL PROPERTIES — TYPICAL VALUES (CLEAR RIGID PVC)

PROPERTY	ASTM	TYPICAL VALUE	UNITS
PHYSICAL			
Specific Gravity	D792	1.38 – 1.40	—
Water Absorption, 24h	D570	0.04 – 0.06	%
Light Transmission	D1003	82 – 87	%
Haze	D1003	< 3	%
MECHANICAL			
Tensile Strength, Ultimate	D638	7,000 – 7,500	psi (48–52 MPa)
Tensile Modulus	D638	400,000	psi (2,760 MPa)
Elongation at Break	D638	30 – 50	%
Flexural Strength	D790	12,000	psi (83 MPa)
Flexural Modulus	D790	400,000	psi (2,760 MPa)
Impact, Izod Notched	D256	0.5 – 1.0	ft-lb/in (27–53 J/m)
Hardness, Rockwell	D785	R110 – R115	—
THERMAL			
Heat Deflection @ 264 psi	D648	150 – 160	°F (66–71°C)
Max Continuous Service	—	140	°F (60°C)
Vicat Softening Temp	D1525	175	°F (79°C)
CTE (Linear)	D696	3.5 × 10 ⁻⁵	in/in/°F
Thermal Conductivity	C177	1.1	BTU-in/hr-ft²-°F
ELECTRICAL			
Volume Resistivity	D257	> 10 ¹⁵	ohm-cm
Dielectric Strength	D149	400 – 450	V/mil
Dielectric Constant, 1MHz	D150	2.9 – 3.1	—
OPTICAL / FLAMMABILITY			
UL Flammability Rating	UL 94	V-0	—
UV Resistance	—	Fair	UV-stab. grades avail.

PROCESSING / FABRICATION NOTES: Easily thermoformed at 270–340°F | Score-and-snap for thin gauges | Machine with standard PVC parameters | Solvent weldable with cyclohexanone or MEK | Do NOT overheat — releases HCl gas

CHEMICAL RESISTANCE: Same excellent resistance as gray PVC: acids, bases, salts, and aliphatic hydrocarbons. **AVOID:** ketones, esters, chlorinated & aromatic solvents, and THF — will cloud or dissolve clear PVC. **NOTE:** prolonged UV exposure will yellow clear PVC; use UV-stabilized grades for outdoor use.

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.