



Kleerdex Company

KYDEX® T IMPACT RESISTANT FIRE RATED SHEET

Fire retardant thermoplastic acrylic/PVC sheet for general thermoforming. Outperforms FR-ABS at comparable cost.

GENERAL INFORMATION

Kydex T is a proprietary acrylic/PVC thermoplastic sheet that is cost competitive with fire retardant ABS/PVC (FR-ABS) formulations but with significantly higher impact strength and extensibility. Unlike FR-ABS, because Kydex T is less hygroscopic, Kydex T typically does not require pre-drying; offers superior impact resistance 15 ft-lbs/in (801 J/m); more uniform forming with less wall thinning; and offers significantly greater resistance to a broad range of corrosive chemicals and cleaning solutions. It is available in a wide range of aesthetic choices and is UL recognized Std 94 V-0/5V.

SUGGESTED END-USES

- External housings for equipment such as photocopy machines, instrument panels, computers,
- Internal parts for equipment such as vending machines, air ducts, grilles, etc.
- Orthopedic braces
- Medical equipment parts (for example, centrifuge covers, blood analyzers, etc.).
- In-store displays
- Electrical equipment and any components requiring an UL 94 V-0 rating.

FEATURES

Kydex T is formulated to substitute for FR ABS sheet with competitive pricing but superior cost/performance.

Kydex T has higher breakage resistance as measured by the Notched Izod test than competitive thermoplastics.

Kydex T is available in eight gauges from 0.028" (.71mm) and up, in nine textures, a large variety of colors, custom blank sizes, and very low minimums.

Kydex T is among the most rigid of thermoforming materials, with a modulus of elasticity of 350,000 psi (2482 MPa).

FABRICATION

Kydex T is easy to form with excellent part definition and deep-draw characteristics. It forms with similar forming times to FR-ABS making it easy transition from competitive products.

PROPERTY	TEST METHOD	TYPICAL VALUE ¹
Specific Gravity	ASTM D-792	1.35
Tensile Strength, psi (MPa)	ASTM D-638	6,100 (42)
Elongation at Break, %		110
Flexural Strength, psi (MPa)	ASTM D-790	9,600 (66)
Modulus of Elasticity, psi (MPa)		360,000 (2482)
Rockwell Hardness, R	ASTM D-785	94
Notched Izod Impact Resistance, 73°F (23°C), ft-lbs/in (J/m)	ASTM D-256	15 (801)
Heat Deflection Temperature, HDT, @264psi (1.8MPa), annealed, °F (°C)	ASTM D-648	168° (75.5°)
Flammability Resist. : Underwriter's Lab ² .	UL Standard 94	V-0
	FAR 25.853a	Pass
Flammability Resist. : Federal Aviation Admin.		
Mold Shrinkage, %		0.4 -- 0.6
Forming cycle time		Equivalent to FR-ABS
Forming Temperature, F (C)		325°-390° (163-200°)

¹All values based on 0.125" (3.12mm) sheet unless otherwise specified.

²All gauges from 0.028" (.71mm) and greater. Not intended for specification purposes.