



ILC Decorative Kydex® T Technical Information

Kydex® is a proprietary thermoplastic sheet that is cost competitive with fire retardant ABS/PVC (FR-ABS) formulations but with significantly higher impact strength and extensibility.

Since Kydex® T is less hygroscopic, unlike FR-ABS, it typically does not require pre-drying, offers superior impact, more uniform forming with less wall thinning and great chemical resistance. It is available in a wide range of aesthetic choices and is Underwriter's Laboratories, Inc® recognized Std 94 V-0, 5V.

Application

- Aircraft Interiors
- Mass Transit Vehicle Interior Components
- Equipment Housings
- Kiosk Housings
- Medical Products

Features and Benefits:

- Substitute for FR-ABS sheet with competitive pricing but superior cost/performance
- Higher breakage resistance measured by the Notched Izod test than competitive thermoplastics
- Available in thickness from 0.060" and up, in three textures, a variety of colors, custom blank sizes and low minimums
- Among the most rigid of thermoforming materials with a modulus of elasticity of 2,482 MPa (360,000 psi)
- Easy to form with excellent part definition and deep-draw characteristics
- Recognized by Underwriter's Laboratories, Inc® for Std 94 V-0, 5V in all thickness
- Form times similar to FR-ABS making it an easy transition from competitive products

PROPERTY	TEST METHOD	TYPICAL VALUE	
PHYSICAL			
Specific Gravity	ASTM D792	1.35	
Rockwell Hardness, R-scale	ASTM D785	94	
Moisture Absorption, 24 hrs. @ 50°C	ASTM D570	0.08%	
MECHANICAL			
Tensile Strength	ASTM D638	42 MPa	6,100 psi
Tensile Modulus	ASTM D638	2600 MPa	382,000 psi
Poisson's Ratio	ASTM D638	0.433	
Elongation	ASTM D638	110%	
Flexural Strength	ASTM D790	66 MPa	9,600 psi
Flexural Modulus	ASTM D790	2480 MPa	360,000 psi
Izod Impact, notched	ASTM D256	81 J/m	15 ft-lb/in
Compressive Strength, yield	ASTM D695	54 MPa	7,900 psi
Compressive Modulus	ASTM D695	3,300 MPa	489,000 psi
Shear Strength	ASTM D732	50 MPa	7,380 psi

Bearing Strength, 4% deflection	ASTM D953	31 MPa	4,600 psi
Bearing Strength, Max	ASTM D953	197 MPa	28,700 psi
Gardner Drop Dart Impact, GE	ASTM D5420	>70 J	>627 in-lb _f
THERMAL			
Heat Deflection Temperature (HDT) @ 264 psi (1.8 MPa) annealed	ASTM D648	75.6°C	168°F
ELECTRICAL			
Dielectric Strength	ASTM D648	17.1 kV/mm	435 V/mil
FLAMMABILITY			
Underwriter's Laboratories, Inc.® Component Recognition	UL Standard 94 ²	V-0	
Vertical Burn, 60-second	FAR 25.853(a)(i)	Pass	
Vertical Burn, 12-second	FAR 25.853(a)(i)	Pass	
¹ Values based upon 3.18mm (0.125") sheet unless otherwise specified.			
² Underwriter's Laboratories, Inc.®, File Number E115252			

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