

KYDEX® T-LW

Light weight fire-rated sheet

Introduction

KYDEX® T-LW is a fire-rated thermoplastic sheet that has the flammability characteristics of a PVC/PMMA alloy and features significant weight savings compared to standard KYDEX® T and is comparable to polycarbonate.

General Information

KYDEX® T-LW is a light-weight alternative to heavier fire-rated thermoplastics. It meets a wide range of fire safety standards including FAR 25.853(a) vertical burn, Federal Motor Vehicle Safety Standard 302, and UL 94 V-0. It offers a significant weight reduction compared to other PVC/PMMA alloys. Its wide processing window and ease of thermoforming makes it ideal for three-dimensional parts requiring crisp detail.

Suggested Applications

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

Features

- Offers a 10% weight savings compared to KYDEX® T and is comparable to polycarbonate
- Specific gravity of 1.21
- Meets flammability requirements listed in FAR 25.853(a)
- Compliant to Federal Motor Vehicle Safety Standard, FMVSS 302
- Recognized by Underwriter's Laboratories, Inc. as UL 94 V-0 rated in all thicknesses
- Excellent formability and fabrication characteristics
- Allows for tight tolerance control
- Easy machining using conventional methods and equipment
- Available in P-1, P-3, and P-C textures and thicknesses from 1.19mm (0.047") to 6.35mm (0.250")

Environmental and Safety Considerations

SEKISUI SPI is committed to ensuring that its products can be manufactured, transported, stored, used, disposed and recycled with an appropriate regard for safety, health and environmental protection. We support the safe handling of our products. Please contact our Technical Service department at 800.682.8758 for resources or visit our website: <http://www.sekisui-spi.com>. For Material Safety Data Sheets, please call 800.325.3133.

SEKISUI SPI

ISO 9001 and 14001 Certified

Customer Service

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Physical Properties

Property	Test Method	Typical Value ¹	
Physical			
Specific Gravity	ASTM D792	1.21	
Water Absorption, 24hr	ASTM D570	0.15%	
Rockwell Hardness, R-Scale	ASTM D785	39	
Mechanical			
Tensile Strength	ASTM D638	27.2 MPa	3,950 psi
Tensile Modulus	ASTM D638	1,860 MPa	270,000 psi
Flexural Strength	ASTM D790	44.5 MPa	6,450 psi
Flexural Modulus	ASTM D790	1,800 MPa	261,000 psi
Compressive Strength, yield	ASTM D695	35.9 MPa	5,200 psi
Compressive Modulus	ASTM D695	1,635 MPa	237,000 psi
Shear Strength	ASTM D732	29.0 MPa	4,200 psi
Bearing Strength, 4% deflection	ASTM D953	21.0 MPa	3,050 psi
Bearing Strength, max.	ASTM D953	138.5 MPa	20,100 psi
Gardner Drop Dart Impact, GE	ASTM D5420	15.3 J	135 in-lb _f
Thermal			
Heat Deflection Temperature @264 psi (1.8 MPa), annealed	ASTM D648	67.2°C	153°F
Coefficient of Thermal Expansion	ASTM E831	75.3 µm/m/°C	41.8 µin/in°F
Electrical			
Dielectric Strength, oil	ASTM D149	17.1 kV/mm	435 V/mil
Flammability²			
Vertical Burn, 60-second	FAR 25.853(a)(i)	Pass	
Vertical Burn, 12-second	FAR 25.853(a)(ii)	Pass	
Federal Motor Vehicle Safety	FMVSS 302	Pass	
Underwriter's Laboratories, Inc Component Recognition	UL 94	V-0	
¹ Values based upon 0.125" (3.17mm) sheet unless otherwise specified ² All Thicknesses Not intended for specification purposes.			

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