

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

6685 Low St, Bloomsburg, PA 17815 USA

Phone: 800.325.3133, +1.570.389.5810

Outside the US: +1.570.389.5814

Fax: 800.452.0155, +1.570.387.7786

Email: info@sekisui-spi.com

Technical Service

Phone: 800.682.8758

Fax: +1.570.387.8722

Outside the US: +1.570.387.6997

techservice@sekisui-spi.com

sekisui-spi.com

KYDEX® T-LW

Light weight fire-rated sheet

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. | | | |

SEKISUI SPI

ISO 9001 and 14001 Certified

Customer Service

6685 Low St, Bloomsburg, PA 17815 USA
 Phone: 800.325.5133, +1.570.389.5810
 Outside the US: +1.570.389.5814
 Fax: 800.452.0155, +1.570.387.7786
 Email: info@sekisui-spi.com

Technical Service

Phone: 800.682.8758
 Fax: +1.570.387.8722
 Outside the US: +1.570.387.6997
 techservice@sekisui-spi.com

sekisui-spi.com

Because we cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability of the accuracy of this information or the suitability of our products in any given situation. Users should conduct their own tests to determine the suitability of each product for their particular purposes. Data in the physical property table represents typical values and are to serve only as a guide for engineering design. Results are obtained from specimens under ideal laboratory conditions. Right to change physical properties as a result of technical progress is reserved. THE PRODUCTS DISCUSSED ARE SOLD WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, EITHER EXPRESSED OR IMPLIED, EXCEPT AS PROVIDED IN OUR STANDARD TERMS AND CONDITIONS OF SALE. Buyer assumes all responsibility for loss or damage arising from the handling and use of our products, whether done in accordance with directions or not. In no event shall the supplier or the manufacturer be liable for incidental or consequential damages. Also, statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Consult local code and regulatory agencies for specific requirements regarding code compliance, transporting, processing, recycling and disposal of our product. Product not intended for use as a heat resistant surface. Texture, product grade and other conditions may cause variations in appearance.

This information supersedes all previously published data.



Curbell Plastics is a proud supplier of SEKISUI SPI materials