

## KYDEX® 6513

Integral "Frost" low heat release aviation sheet

### Introduction

KYDEX® 6513 is a proprietary, innovative, high performance thermoplastic sheet specifically formulated to meet the safety needs of the aviation industry while elevating aviation interior aesthetic. Color is filtered through frost-like finish to extend luxe design. Hues shift with movement of passenger or part, defining geometry and plane. KYDEX® 6513 is ideal to use with LED lighting, yet dynamic on its own.

Color and degree of effect may be customized extensively with a unique blend of special-effect pigments and specialized extrusion process. Our designLab™ team collaborates on each project's customization.

### General Information

KYDEX® 6513 meets all fire retardancy requirements set forth in Federal Aviation Regulations 25.853 paragraphs (a) and (d) (old (c)) including low heat release (65 / 65) in the OSU rate of heat release test. Its excellent properties make it the ideal material to form two and three-dimensional aircraft components.

### Suggested Applications

- Seat parts
- Bulkhead laminates
- Window shades
- Armrests
- Life vest shrouds
- Moulding strips
- Passenger service units
- Tray tables
- Monitor shrouds
- Kick panels
- Accent pieces

### Features

- Available in P-3 texture and thicknesses from 0.71mm (0.028") to 3.18mm (0.125")
- Meets the stringent requirements of FAR 25.853 paragraph (d) in all thicknesses and colors
- Easy to fabricate with crisp detail, minimal rejects, and effect integrity
- Can be formed on all standard presses and cut on all standard die-cutting machines
- Easy to clean with aggressive cleaners such as Soft Scrub®, Fantastic®, and citrus-based cleaners such as Citri Kleen® (avoid ammoniated cleaners)
- Secondary operations include: machining, sawing, blanking, punching, etc., are easily performed

### 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](mailto: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](mailto:techservice@sekisui-spi.com)

[sekisui-spi.com](http://sekisui-spi.com)

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### Physical Properties

| Property   | Test Method                           | Typical Value <sup>1</sup>                         |                |
|--|---------------------------------------|--|----------------|
| <b>Physical</b>  |                                       |  |                |
| Specific Gravity   | ASTM D-792                            | 1.48   |                |
| Water Absorption, 24hr   | ASTM D-570                            | 0.08%  |                |
| Rockwell Hardness, R-Scale   | ASTM D-785                            | 108  |                |
| <b>Mechanical</b>  |                                       |  |                |
| Tensile Strength   | ASTM D-638                            | 53.3 MPa   | 7,730 psi      |
| Tensile Modulus  | ASTM D-638                            | 3,358 MPa  | 487,000 psi    |
| Flexural Strength  | ASTM D-790                            | 82.7 MPa   | 12,000 psi     |
| Flexural Modulus   | ASTM D-790                            | 3,358 MPa  | 487,000 psi    |
| Compressive Strength, yield  | ASTM D-695                            | 75.8 MPa   | 11,000 psi     |
| Compressive Modulus  | ASTM D-695                            | 3,303 MPa  | 479,000 psi    |
| Shear Strength   | ASTM D-732                            | 56.5 MPa   | 8,190 psi      |
| Bearing Strength, 4% deflection  | ASTM D-953                            | 53.3 MPa   | 7,730 psi      |
| Bearing Strength, max.   | ASTM D-953                            | 256.5 MPa  | 37,200 psi     |
| <b>Thermal</b>   |                                       |  |                |
| Heat Deflection Temperature (HDT)<br>@ 1.8 MPa (264 psi) annealed  | ASTM D-648                            | 78.3°C   | 173°F          |
| Coefficient of Thermal Expansion   | ASTM E-831                            | 58.3 µm/m/°C                                       | 32.4 µin/in/°F |
| <b>Electrical</b>  |                                       |  |                |
| Dielectric Strength, oil   | ASTM D-149                            | 22.4 kV/mm   | 570 V/mil      |
| <b>Flammability<sup>2</sup></b>  |                                       |  |                |
| Vertical Burn, 60-second<br>Vertical Burn, 12-second   | FAR 25.853(a)(i)<br>FAR 25.853(a)(ii) | Pass<br>Pass                                       |                |
| OSU Heat Release, 2-min total<br>OSU Heat Release, peak  | FAR 25.853(d) Part IV                 | <65 kW.min/m <sup>2</sup><br><65 kW/m <sup>2</sup> |                |
| NBS Smoke Density  | FAR 25.853(d) Part V                  | D <sub>max</sub> <200                              |                |
| <sup>1</sup> Values based upon 3.18mm (0.125") sheet unless otherwise specified.<br><sup>2</sup> All Thicknesses<br>Not intended for specification purposes. |                                       |  |                |

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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

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