

## KYDEX® 6185

### High temperature aircraft sheet

#### Introduction

KYDEX® 6185 is a proprietary thermoplastic sheet with improved heat distortion temperature (HDT) for higher in-service temperatures while providing excellent extensibility, good impact resistance and excellent solvent resistance.

#### General Information

KYDEX® 6185 meets FAR 25.853 (a) (i) + (ii) for use in aircraft interior parts. Maximum recommended service temperature is approximately 85 - 90°C (185 - 195°F) depending on thermoforming technique and application.

#### Suggested Applications

- Aircraft Interiors
- Equipment Housings

#### Features

- Available in thicknesses from 1.00mm (0.040") in eight distinctive textures and custom colours
- Meets the requirements of the Federal Aviation Administration FAR 25.853 (a) (i) + (ii) in all thicknesses for vertical burn
- Heat distortion temperature (HDT) is 85°C (185°F) unannealed at 1.8 MPa (264 psi) and a high 90°C (195°F) after annealing
- Excellent forming properties, uniform wall thickness and crisp detail
- Easy machining and fabricating using conventional methods and equipment

#### 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>             |  |
|---|---|--|--|
| Specific Gravity  | ASTM D-792                              | 1.33 - 1.37                            |  |
| Tensile Strength  | ASTM D-638                              | 44 MPa                                 | 6,400 psi                              |
| Flexural Strength   | ASTM D-790                              | 66 MPa                                 | 9,600 psi                              |
| Modulus of Elasticity   | ASTM D-790                              | 2,241 MPa                              | 325,000 psi                            |
| Notched Izod Impact Resistance, @ 23°C (73°F)                         | ASTM D-256                              | 267 J/m                                | 5 ft-lbs/in                            |
| Rockwell Hardness (R Scale)   | ASTM D-785                              | 104                                    |  |
| Heat Deflection Temperature (HDT)<br>@ 264 psi (1.8 MPa)              | ASTM D-648                              | 90.6°C (annealed)<br>85°C (unannealed) | 195°F (annealed)<br>185°F (unannealed) |
| Flammability:<br>Federal Aviation Administration                      | FAR 25.853 (a)                          | PASS                                   |  |
| Flammability:<br>Vertical Burn, 60-second<br>Vertical Burn, 12-second | FAR 25.853 (a)(i)<br>FAR 25.853 (a)(ii) | PASS<br>PASS                           |  |
| Mold Shrinkage %  |   | 0.40 - 0.60                            |  |
| Thermoforming Range   |   | 163 - 200°C                            | 325 - 390°F                            |

<sup>1</sup> Values based upon 3.18mm (0.125") sheet unless otherwise specified.  
Not intended for specification purposes.

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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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