KYDEX® THERMOPLASTICS

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

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Technical Data Sheet

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Physical Properties

Property	Test Method	Typical Value[1]	
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) @ 264 psi (1.8 MPa)	ASTM D-648	90.6°C (annealed) 85°C (unannealed)	195°F (annealed) 185°F (unannealed)
Flammability: Federal Aviation Administration	FAR 25.853 (a)	PASS	
Flammability: Vertical Burn, 60-second Vertical Burn, 12-second	FAR 25.853 (a)(i) FAR 25.853 (a)(ii)	PASS PASS	
Mold Shrinkage %		0.40 - 0.60	
Thermoforming Range		163 - 200°C	325 - 390°F

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

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