

KYDEX® 6503

Integral pearlescent low heat release aviation sheet

Introduction

KYDEX® 6503 is a proprietary, high performance thermoplastic sheet specifically formulated to meet the safety needs of the aviation industry. Integrally pearlescent, this sheet is perfect for use with LED lighting or on it's own.

General Information

KYDEX® 6503 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
- Armrests
- Passenger service units
- Bulkhead laminates
- Life vest shrouds
- Tray tables
- Moulding strips
- Monitor shrouds
- Kick panels

Features

- Meets the stringent requirements of FAR 25.853 paragraph (d) in all thicknesses and colours
- Highlighted in a collection of 28 developed colours, colour matching also available
- Excellent formability and fabrication characteristics
- Allows for tight tolerance control and crisp detail, minimal rejects
- Available in P-3 texture and thicknesses from 0.71mm (0.028") to 3.18mm (0.125")
- Easy to clean with aviation grade cleaners such as celeste® FSC and celeste® Interior Cleaner Complete. Avoid ammoniated cleaners.

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

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

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Physical Properties

Property	Test Method	Typical Value ¹	
PHYSICAL			
Specific Gravity	ASTM D-792	1.48	
Water Absorption, 24 hr	ASTM D-570	0.09%	
Rockwell Hardness, R-Scale	ASTM D-785	98	
MECHANICAL			
Tensile Strength	ASTM D-638	55 MPa	7,950 psi
Tensile Modulus	ASTM D-638	3,289 MPa	477,000 psi
Poisson's Ratio	ASTM D-638	0.35	
Flexural Strength	ASTM D-790	83 MPa	10,500 psi
Flexural Modulus	ASTM D-790	2,999 MPa	435,000 psi
Compressive Strength	ASTM D-695	66 MPa	9,560 psi
Compressive Modulus	ASTM D-695	3,454 MPa	501,000 psi
Shear Strength	ASTM D-732	56 MPa	8,110 psi
Bearing Strength, 4% deflection	ASTM D-953	37 MPa	5,390 psi
Bearing Strength, max	ASTM D-953	225 MPa	32,600 psi
THERMAL			
Heat Deflection Temperature (HDT) @ 264 psi (1.8 MPa) annealed	ASTM D-648	78.3°C	173°F
Coefficient of Thermal Expansion	ASTM E-831	68.5 µm/m/°C	38.1 µin/in/°F
ELECTRICAL			
Dielectric Strength, oil	ASTM D-149	17.6 kV/mm	447 V/mil
FLAMABILITY²			
Vertical Burn, 60-second	FAR 25.853(a)(i)	Pass	
Vertical Burn, 12-second	FAR 25.853(a)(ii)	Pass	
OSU Heat Release	FAR 25.853 (d) Part IV	Pass	
NBS Smoke Density	FAR 25.853(d) Part V	Pass	
¹ Values based upon 3.18mm (0.125") sheet unless otherwise specified. ² All thicknesses and colours Not intended for specification purposes.			

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This information supersedes all previously published data.