KYDEX® THERMOPLASTICS

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

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

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Technical Data Sheet

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Physical Properties

Property	Test Method	Typical Value[1]	
Physical			
Specific Gravity	ASTM D-792	1.48	
Water Absorption, 24hr	ASTM D-570	0.08%	
Rockwell Hardness, R-Scale	ASTM D-785	108	
Mechanical			
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
Thermal			
Heat Deflection Temperature (HDT) @ 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
Electrical			
Dielectric Strength, oil	ASTM D-149	22.4 kV/mm	570 V/mil
Flammability[2]			
Vertical Burn, 60-second Vertical Burn, 12-second	FAR 25.853(a)(i) FAR 25.853(a)(ii)	Pass Pass	
OSU Heat Release, 2-min total OSU Heat Release, peak	FAR 25.853(d) Part IV	<65 kW.min/m² <65 kW/m²	
NBS Smoke Density	FAR 25.853(d) Part V	D_{max} <200	

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

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