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

FEATURES

- Highlighted in a collection of 28 developed colours, colour matching also available
- Available in P-3 texture and thicknesses from 0.71mm (0.028") to 3.18mm (0.125")
- Easy to clean with aggressive cleaners such as Soft Scrub®, Fantastic®, and citrus-based cleaners such as Citri Kleen® (avoid ammoniated cleaners)
- Meets the stringent requirements of FAR 25.853 paragraph (d) in all thicknesses and colors
- Forms deep draws with low forces when heated to the upper end of forming temperature range
- Crisp detail, minimal rejects
- Can be formed on all standard presses and cut on all standard die-cutting machines
- Secondary operations include: machining, sawing, blanking, punching, etc. are easily performed

ENVIRONMENTAL & SAFETY CONSIDERATIONS

SEKISUI KYDEX, LLC 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.kydex.com. For Material Safety Data Sheets, please call 800.325.3133.

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KYDEX THERMOPLASTICS

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PROPERTY	TEST METHOD	TYPICAL VALUE[1]	
PHYSICAL			
Specific Gravity	ASTM D792	1.48	
Water Absorption, 24hr	ASTM D-570	0.09%	
Rockwell Hardness, R-scale	ASTM D785	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, yield	ASTM D-695	66 MPa	11,000 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 D648	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	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	Dmax <200	

1 Values based upon 3.18mm (0.125") sheet unless otherwise specified.
2 All thicknesses 0.71mm (0.028") and above

Not intended for specification purposes.

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