KYDEX® 7115 Lumina™

Low heat release, compliant aviation sheet for backlit applications

INTRODUCTION

KYDEX® 7115 Lumina™ is a PVC/PMMA product that allows light to pass through the material, while silhouettes are still visible. KYDEX® Lumina™ meets stringent FAA compliance for heat release and smoke density. The product allows design freedom in aircraft interiors with our Infused Imaging™ technology to diffuse or disperse light to create effects. KYDEX® Lumina™ has contact clarity: one cannot see through it unless it is illuminated from behind or in a well-lit space.

GENERAL INFORMATION

KYDEX® Lumina™ is designed for backlit panels and decorative accents in aviation interiors. It meets flammability and smoke development requirements outlined in Federal Aviation Regulations (FAR) 25.853 paragraph (a) and (d).

SUGGESTED APPLICATIONS

- Privacy screens
- Class dividers
- Compartment doors
- Galley and bar space accents
- Lavatory fixtures
- Light diffusers
- Backlit décor

FEATURES

- Increases design freedom for backlit panels and accents
- Expanded design options with Infused Imaging™ technology
- Meets the stringent requirements of FAR 25.853 in all thicknesses
- Excellent fabrication and formability characteristics
- Resistant to chemical reagents and cleaners commonly used within aviation interiors
- Available in P3 - Velour Matte texture

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 appLab™ department at 800.682.8758 for resources and Safety Data Sheets or visit our website: www.kydex.com.

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KYDEX THERMOPLASTICS

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Property	Test Method	Typical Value[1]	
PHYSICAL			
Specific Gravity	ASTM D-792	1.47	
Water Absorption, 24 hr	ASTM D-570	0.06%	
Rockwell Hardness, R-Scale	ASTM D-785	112	
MECHANICAL			
Tensile Strength	ASTM D-638	46.8 MPa	6,790 psi
Tensile Modulus	ASTM D-638	3,385 MPa	491,000 psi
Poisson's Ratio	ASTM D-638	0.405	
Flexural Strength	ASTM D-790	77.2 MPa	11,200 psi
Flexural Modulus	ASTM D-790	3,454 MPa	501,000 psi
Compressive Strength, yield	ASTM D-695	66.7 MPa	9,670 psi
Compressive Modulus	ASTM D-695	3,847 MPa	558,000 psi
Shear Strength	ASTM D-732	52.6 MPa	7,630 psi
Bearing Strength, 4% deflection	ASTM D-953	37.6 MPa	5,450 psi
Bearing Strength, max	ASTM D-953	230.3 MPa	33,400 psi
Gardner Drop Dart Impact, GE geometry	ASTM D-5420	49.1 J	435in-lb_f
THERMAL			
Heat Deflection Temperature (HDT) @ 264 psi (1.8 MPa) annealed	ASTM D-648	73.7°C	164.7°F
Coefficient of Thermal Expansion	ASTM E-831	55.6 µm/m/°C	30.9 µin/in/°F
ELECTRICAL			
Dielectric Strength, oil	ASTM D-149	18.3 kV/mm	465 V/mil
FLAMMABILITY[2]			
Vertical Burn, 60-second	FAR 25.853(a) Part 1 (a)(i)	Pass	
Vertical Burn, 12-second	FAR 25.853(a) Part 1 (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
Not intended for specification purposes.

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