KYDEX® ECO 6565HI

Sustainable high impact, (d)-compliant aviation sheet

INTRODUCTION

KYDEX® ECO 6565HI is a proprietary, high performance thermoplastic sheet with integral color specifically engineered to improve aircraft passenger safety with a focus on sustainability.

GENERAL INFORMATION

KYDEX® ECO 6565HI is designed to provide material deformation when used in components subjected to HIC (Head Injury Criterion) testing for increased passenger safety. It is a more sustainable solution by leveraging renewable raw materials and more eco-friendly alternatives.

KYDEX® ECO 6565HI mets the flammability and smoke development requirements outlined in Federal Aviation Regulations (FAR) 25.853 paragraphs (a) and (d). It meets a 65/65 heat release and 200 smoke development.

SUGGESTED APPLICATIONS

- Seat parts
- Bulkhead laminates
- Life vest shrouds
- Passenger service units
- Monitor Shrouds
- Armrests
- Moulding strips
- Tray tables
- Kick panels

FEATURES

- A more sustainable product selection by leveraging renewable ingredients and more eco-friendly alternatives
- Improved impact properties over traditional thermoplastics for HIC compliance seating requirements
- Reduces the cost of compliance by decreasing the total number of expensive and time consuming 16g tests required
- Increases design freedom to create more complex seat geometries
- Decreases weight by eliminating the need for heavy reinforcements or thick gauges
- Meets the stringent requirements of FAR 25.853 paragraphs (a) and (d) in all thicknesses and colors
- Processes similar to KYDEX® 5555HI and KYDEX® 6565HI
- Available in a wide range of integral colors

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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PHYSICAL PROPERTIES

Property	Test Method	Typical Value[1]	
PHYSICAL			
Specific Gravity	ASTM D792	1.49	
Water Absorption, 24hr	ASTM D570	0.05%	
Rockwell Hardness, R-Scale	ASTM D785	105	
MECHANICAL			
Tensile Strength	ASTM D638	45.7 MPa	6,630 psi
Tensile Modulus	ASTM D638	3,806 MPa	552,000 psi
Poisson's Ratio	ASTM D638	0.361	
Flexural Strength	ASTM D790	75.8 MPa	11,000 psi
Flexural Modulus	ASTM D790	3,778 MPa	548,000 psi
Compressive Strength, yield	ASTM D695	58.3 MPa	8,450 psi
Compressive Modulus	ASTM D695	3,585 MPa	520,000 psi
Shear Strength	ASTM D732	55.8 MPa	8,090 psi
Bearing Strength, 4% deflection	ASTM D953	41.0 MPa	5,950 psi
Bearing Strength, max.	ASTM D953	217.9 MPa	31,600 psi
Gardner Drop Dart Impact, GE	ASTM D5420	59.9 J	530 in-lbf
THERMAL			
Heat Deflection Temperature (HDT) @ 264 psi (1.8 MPa), annealed	ASTM D648	76.1°C	169.0°F
Coefficient of Thermal Expansion	ASTM E831	63.3 µm/m/°C	35.2 µin/in/°F
Electrical			
Dielectric Strength, oil	ASTM D149	16.5 kV/mm	420 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	≤ 65/65	
NBS Smoke Density	FAR 25.853(d) Part V	≤ 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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This information supersedes all previously published data.

