Showa Aircraft Industry Co., Ltd. Document # TD-005 Rev.Org

AeroRigid[™] 4155

Composites Panel for Aircraft Flooring

High strength-to-weight ratio

Moisture and corrosion resistance

High impact strength

The AeroRigid[™] 4155 is a sandwich panel made with facings of unidirectional fiberglass reinforced epoxy laminate and Nomex[®] honeycomb core (SAH), designed for aircraft flooring.

® Nomex is registered trademark of E.I. DuPont de Nemours, Wilmington, Delaware. SAH: Showa Aramid Honeycomb

Features



Applications

The AeroRigid[™] 4155 is designed for aircraft flooring for use in general heavy duty area and provides a good peformance for flooring in cargo area.

Availability

Construction

Thickness:0.400 inchFacing:0.030"Width:Standard 48" (Maximum 60")Length:Standard 144"

Facing reinforcement: Unidirectional fiberglass Facing resin system: Epoxy Honeycomb Core: SAH 1/8-13.0 (AMS-C-3711)

Typical Performance Properties

Testing	Unit	Value
Areal Weight	psf	1.08
Thickness	inch	0.41
Long Beam Flexure	lbs	678
Deflection at 100 lbs	inch	0.317
Panel Shear	lbs	1,231
Drum Peel	lbs/3 inch	39
In-Plane Shear	lbs/in	775
Insert Shear	lbs	1,305
Impact Strength	in-lb	103
Stabilized Core Compression	psi	3,389
Warpage	in/ft	0
Food Cart Roller Test	Cycles without failure, Min.	Stage 1: 125,000/Stage 2: >35,000
Flammability - 60 second vertical		
Self - extinguishing time	seconds	1
Burn length	inches	3
Drip, extingushing time	seconds	none
Flammability - 45 degree angle		
Self - extinguishing time	seconds	0
Penetration		No penetration
Glow time	seconds	0

*1 Meet FAA allowable per FAR 25.853 Appendix F, Part I - Vertical and Forty-five degree

*2 Above tests are run in accordance with BMS4-17 specification requirements.

Note: Above figures reflect typical values and should not be used as design specifications.

CONTACT FOR MORE INFORMATION

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