

Geneerco Floor #6, Type 13, 14 & 15 Sandwich Structures

1. Background

General Veneer Manufacturing Co. has been supplying lightweight materials and products to the aircraft and aerospace industry for over 50 years. With the advent of the wide body commercial airplane, new materials were required to meet their specific needs. We were among the first to use these new materials in production and have continued to develop new configurations.

Flooring materials were one of the major areas of concern to the airframe manufacturers, and Nomex[®] Honeycomb was developed for this application. Nomex[®] core possesses excellent high impact strength and performs superbly on the food cart roller test.

With the new advanced composites being developed, it was natural to combine this lightweight core material with our improved epoxy fiberglass laminate for a new concept in bonded composite sandwich panels.

2. Product Introduction

Geneerco Floor #6 series is a non-metallic core bonded sandwich panel. This panel offers light weight, high performance, corrosion resistance, flame retardancy, and cost effectiveness in one bonded sandwich panel with reinforced polymer or metallic faces. These qualities make it suitable for use in a wide range of applications such as floors, bulkheads, dividers, galley structures and lavatories.

3. Performance

Research and development testing on fatigue properties indicate a long service life can be expected. Geneerco flooring is suitable for many applications and for installations that require quality products at a competitive in-place cost, Geneerco flooring excels.

4. Type Identification

Type 13 products utilizes medium density Nomex[®] Honeycomb core, with heavy duty uni-directional epoxy fiberglass skins.

Type 14 products utilizes medium density Nomex[®] Honeycomb core, with uni-directional epoxy fiberglass skins.

Type 15 products utilizes low density Nomex[®] Honeycomb core, with uni-directional epoxy fiberglass skins.

The following tables depict the quality aspects of Geneerco Floor #6, Types 13, 14 and 15.

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5. Typical Physical and Mechanical Properties.

Physical Description ^①	Typical Values			Unit	
	Geneerco Floor #6	Type 13	Type 14		Type 15
Weight		1.30	.62	.51	p.s.f.
Overall Thickness		.375	.375	.375	in.
Skin Thickness		.040	.015	.015	in.
Length • Nominal 96", 120", 144"		Up to 192	Up to 192	Up to 192	in.
Width • Nominal 48", 60", 72"		Up to 72	Up to 72	Up to 72	in.

Panel Strength • Test Method	Typical Values			Unit	
	Geneerco Floor #6	Type 13	Type 14		Type 15
Flatwise Tensile • MIL-STD-401		450	475	380	p.s.i.
Stabilized Compression • MIL-STD-401		1615	1615	570	p.s.i.
Long Beam Bending • MIL-STD-401 (20 in. Span, 1/4 Point Loading)		675	234	216	lb.
Short Beam • MIL-STD-401		900	475	380	lb.
Climbing Drum Peel		23	23	23	in-lb/3 in. width
Flammability • 60 Second Vertical Ignition		15/6	15/6	15/6	sec./in.
Nominal Core Density		9.0	9.0	5.0	p.c.f.

- ① Panels are available in other thicknesses, widths, lengths and core densities per customer request.
2. Nomex[®] is a registered trademark of DuPont.
3. Qualifications and Approvals:
Geneerco Floor No. 6, Type 13 is qualified to LAC C-28-1386, Type III
Geneerco Floor No. 6, Type 14 is qualified to LAC C-28-1386, Type I
Geneerco Floor No. 6, Type 15 is qualified to LAC C-28-1386, Type II