

Geneerco Floor #6, Type 24 Sandwich Structure

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

Geneerco Floor #6, Type 24 is constructed from a basic Floor #6, Type 14 panel with an aluminum overlay of .032 6061T6 on the face surface for added durability.

The following tables depict the quality aspects of Geneerco Floor #6, Types 24.

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5. Typical Physical and Mechanical Properties.

Physical Description ^①	Typical Values	Unit
Geneerco Floor #6	Type 24	
Weight	1.16	p.s.f.
Overall Thickness	.407	in.
Glass Skin Thickness	.015	in.
6061T6 Face Overlay Thickness	.032	in.
Length • Nominal 96", 120", 144"	Up to 192	in.
Width • Nominal 48", 60", 72"	Up to 72	in.

Panel Strength • Test Method	Typical Values ^③	Unit
Geneerco Floor #6	Type 24	
Stabilized Compression • MIL-STD-401	1615	p.s.i.
Long Beam Bending • MIL-STD-401 (20 in. Span, 1/4 Point Loading)	260	lb.
Short Beam • MIL-STD 401-B	500	lb.
Climbing Drum Peel	30	in-lb/3 in. width
Flammability	PASS	sec.
Impact	50	in-lb
Nominal Core Density	9.0	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 Typical values shown for basic #6, Type 14 construction only.

4. Geneerco Floor #6, Type 14 is Qualified to LAC C-28-1386, Type I.