

Geneerco Composites #6, Type 22 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 Geneerco Phenoglass LS phenolic fiberglass laminate for a new concept in bonded composite sandwich panels.

2. Product Introduction

Geneerco Composites #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 composites are suitable for many applications and for installations that require quality products at a competitive in-place cost, Geneerco composites excel. Geneerco Composite #6, Type 22 meets the requirements of DAC Drawing S3933941 Code C, Types A and B.

4. Type Identification

Geneerco Composite #6, Type 22 products utilizes low density Nomex[®] Honeycomb core, with Geneerco Phenoglass LS phenolic impregnated fiberglass skins.

Core ribbon direction shall be specified as Class A for ribbon parallel to panel length and Class B for ribbon parallel to panel width.

The following tables depict the quality aspects of Geneerco Composite #6, Type 22.

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5. Typical Physical and Mechanical Properties.

Physical Description ^①	Typical Values ^⑥	Unit
Geneerco Composite #6	Type 22	
Weight	.97	p.s.f.
Overall Thickness • (-0.000, +0.025)	.300	in.
Skin Thickness • Phenoglass LS	.040/.030	in.
Core Cell Size • Nomex [®]	1/8	in.
Nominal Core Density • Nomex [®]	8.0	p.c.f.
Length • Nominal 96", 120", 144"	Up to 192	in.
Width • Nominal 48", 60", 72"	Up to 72 ^②	in.
Panel Strength • Test Method	Type 22	Unit
Stabilized Compression • MIL-STD-401	1200	p.s.i.
4" Long Beam Bending • MIL-STD-401 (20 in. Span, 1/4 Point Loading)	330	lb.
Flammability • 60 Sec. Vertical Ignition	15	sec. ext.

- ① Panels are available in other thicknesses, widths, lengths and core densities per customer request.
- ② Some widths may require splicing of the impregnated glass in the face sheet construction.
3. Nomex[®] is a registered trademark of DuPont.
4. Geneerco Phenoglass LS face sheets are qualified to and meet the requirements of DMS1558, Type 2.
5. Geneerco Composite #6, Type 22 Sandwich Structures meet the requirements of DAC Drawing S3933941 Code C, Types A and B.
- ⑥ Values listed represent theoretical averages to be expected. Prospective users should evaluate the material to determine if material is suitable for the users' specific requirements. User assumes all risk and responsibilities for any loss or damage caused by or resulting from the use of any information contained within this product bulletin.