HERCULEAN™ STRUCTURAL FOAM

Co-Polymer Foam Core

HercuLean™ is an innovative structural foam core that can replace wood in boat building, transportation and recreational vehicles, construction and more. This revolutionary product can inherently withstand common elements that break down wood. Unlike wood, HercuLean closed-cell foam does not splinter and is resistant to ultraviolet rays, moisture, mold, mildew, rot, and insects.

HERCU LEAN™

Transfoamed by NOMACO

DESCRIPTION

Herculean structural foam can be used as a stand alone substrate or as a core material to provide high strength structure in applications such as flooring and walls. Nomaco has the capability to provide complete sheet stock assembly from extrusion to downstream lamination. Herculean is manufactured in variable thicknesses and cut to size beginning at 4' x 8' sheets of 1/2" thickness and up to 30' in length. By selecting top layers and other modified surfaces (slip-resistant, wear resistant, grained) and cut according to specification, we provide our customers with a vast scope of design possbilities.

APPLICATIONS

Herculean is ideal for structural applications such as marine, recreational vehicles and specialty bus floors and walls, side structure for tractor trailors and much more. All traditional thickness are available with welding capability to produce sheet stock in various sizes.

Features

- Closed-cell
- Fire Resistant (FMVSS 302)
- Flexible
- Waterproof
- Insulative
- Lightweight
- Chemical resistant
- Mold resistant
- Durable
- Impact resistant
- Recyclable
- Reusable
- Made in USA

ADVANTAGES

Resistant
- High mechanical resistance & low weight
- No water absorption
- High chemical resistance
- Water vapor & weather resitstant

Simple
- Standard processing to wood, i.e. nailing, screwing, gluing
- Surface repair

Strong
- High stiffness
- Stable tech properties during life cycle

Clean
- Easy to clean
- Environmentally friendly
- 100% recyclable

STRUCTURAL FOAM

PHYSICAL PROPERTIES - FOAM ONLY

PROPERTIES	TEST METHOD	UNITS	H140 14mm	H220 14mm	H80 19mm	H140 19mm	H220 19mm	H140 25mm
Density	ISO 845	kg/m^3	140	220	80	140	220	140
Compression strength @ 25%	ASTM D695	kPa	1383	2299	272	1250	3584	1391
Compression modulus	ISO 1922	kPa	21750	33000	4200	18000	58250	24200
Flexural strength @ 24°C	ASTM D1037	kPa	2335	3172	1475	2459	3430	1876
Screw Retention #10 Screw	ASTM D1037	N	269	504	135	420	930	546
Nail Retention	ASTM D1037	N	30	51	11	45	121	60
Flammability	FMVSS 302	Pass or Fail	Pass	Pass	Pass	Pass	Pass	Pass
Thermal Conductivity @ 24°C	ASTM D5930	W/mK	0.045	0.051	0.043	0.046	0.058	0.051
R-Value	ASTM D2844	Per Inch	3.4	2.8	3.4	3.2	2.5	2.8
Water Absorbtion	ASTM D3575	kg/m^2	0.51	0.17	.29	0.18	0.09	0.32