



High Density Sheet



Tangent High Density Sheet is a durable, all-weather sheet that is non-foamed and annealed, creating an incredibly strong board that is able to span greater lengths and exhibits high impact resistance. Resistant to water, mildew, moisture, stains, insects and chemicals, our sheet works easily with CNCs and common woodworking tools.

STANDARD COLORS



Black

Red

Gray

White

**In Orange Peel Finish*

COMMON APPLICATIONS

- Outdoor Furniture & Kitchens
- Outdoor Cabinetry & Storage
- Marine & Watercraft
- Golf Courses, Parks & Playgrounds
- Bathroom Partitions
- Travel Trailer & RV
- Site Amenities & Signage
- Landscape Architecture

TECHNICAL INFORMATION

Properties	ASTM	Value/Units
Density	D792-20	.96 g/cc
Tensile Strength @ Yield	D638	3,798 psi
Tensile Modulus	D638	221,000 psi
Elongation @ Break	D638	33.7%
Elongation @ Yield	D638	10.7%
Flexural Modulus	D790	242,460 psi
Flexural Stress @ 5% Strain	D790	4,419 psi
Compressive Properties 10% Strain	D695	4,718 psi
Durometer (Hardness)	D2240	65, Shore D
Izod Impact Resistance	D256	2.37 ft-lbs/in ²
Brittleness Temp	D746	<-80°C (-112°F)
Vicat Softening Temp	D1525	55KN - 72°C (161°F)
Heat Deflection Temp 66psi	D648	75°C (167°F)
Screw and Nail Withdrawal	D1761	939 & 122 lbs
Screw and Nail Withdrawal, 1-1/2" & 2"	D1761	1948 & 2271 lbs
Flammability	UL94	HB Rating
Water Absorption	D570	<0.01%
Coefficient of Linear Expansion	D696	6.62 x 10 ⁻⁵ in/in/°F
Coefficient of Friction (static/dynamic)	C1894	0.21/0.16

Suitability and Limitations

These products have greater impact resistance than wood but conversely less rigidity, and therefore prior to use a thorough design engineering study must be performed to determine the suitability of High Density Sheet in any critical application.

Fabrication is similar to wood and normal woodworking tools can be used. One should be advised that by transforming the product by drilling holes and routing edges the integrity and strength of the part can be altered. Eye protective wear, dusk masks, gloves and normal safety precautions must be used when handling and fabricating the product.

Inherent in High Density Sheet products, you will observe a greater coefficient of thermal expansion than stiffer wood products. Therefore, when designing your application, an accommodation must be made to properly allow for expected expansion and contraction over the length of the product.

Static electricity is a naturally occurring phenomenon to all resin based products. On extremely dry days there is the potential to experience a small static shock if you walk across a High Density Sheet product and touch a conducting surface such as a metal fixture. This is comparable to walking across your carpet and receiving a static shock when you touch the door handle. We do not warranty against static electricity as it is a natural occurring phenomenon and is not a manufacturing defect.

During winter conditions, you might find any surface made from High Density Sheet to be slippery in snow, wet and frost conditions. Unlike most other surfaces, you can easily spread rock salt or calcium chloride to restore decent traction and melt the frost or ice layer with no harmful effect to the High Density Sheet products.

Warranty

Tangent Technologies LLC, the manufacturer of High Density Sheet products, offers a limited warranty that this product will not rot, splinter, decay or suffer structural damage directly from termites or fungal decay under normal use. Tangent Technologies LLC does not recommend or approve this product for all end use applications. The appropriate national and local code authorities should be consulted for safety, suitability and applicability for intended use prior to purchasing product. (See full warranty details)

This guideline and summary is intended to provide the distributor, installer and end user with basic guidelines and technical specifications for designing and properly installing the High Density Sheet products. However, the installer and/or purchaser of any High Density Sheet product is solely responsible for interpreting specific job conditions and determining the engineering design and suitability of end use and application of any High Density Sheet product. Adherence to applicable building and safety codes for specific locations and applications of this product are the sole responsibility of the installer and/or purchaser. In no event shall Tangent Technologies LLC, the manufacturer of the High Density Sheet products, be liable for labor, installation, reinstallation or for any indirect, punitive, exemplary or consequential damages of any kind whatsoever from the provisions of this information.

This revision 1.6 [5/22/23] supersedes all other High Density Sheet technical data sheets.