



## TanDeck Marine Decking



TanDeck is highly durable, low-maintenance marine decking that excels with wood-like aesthetics. This resilient marine dock board is engineered for residential boat docks, marinas and light commercial applications. Made using a blend of recycled plastic, TanDeck is the ideal decking investment for piers, waterfront properties and structures.

## STANDARD COLORS



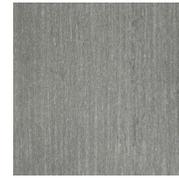
Antique Mahogany



Birchwood



Coastal Gray



Driftwood Gray



Light Gray



Sand



Weathered Wood

## COMMON APPLICATIONS

- Marine Decking
- Residential Docks
- Boardwalks
- Piers

## TECHNICAL INFORMATION

Properties	ASTM	Value/Units
Specific Gravity	D6111	48.0 lb/cubic ft
Flexural Strength	D6109	2,114 psi
Flexural Modulus (Secant, at 1% strain)	D6109	137,861 psi
Compressive Strength (Perpendicular to grain)	D6108	1,440 psi
Compressive Modulus (Perpendicular to grain, Secant, at 1% strain)	D6108	70,000 psi
Coefficient of Thermal Expansion	D6341	0.000028 in/in/F
Static Coefficient of Friction - Dry	D2394	0.73
Impact Resistance (Izod)	D256	4.53 ft-lb/in
Water Absorption	D570	0.27% max by weight
Screw Withdrawal	D6117	600 lbs
Useful Temperature Range		-40°F to +140°F

## 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 TanDeck 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. (See MSDS sheet for more details)

Inherent in TanDeck 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 dry days there is potential to experience a static shock if you walk across TanDeck and touch a conducting surface such as a metal fixture. The physics is similar to walking across a carpet and receiving a shock when you touch a door handle. We do not warranty against static electricity as it is naturally occurring and is not a manufacturing defect. Contact our technical sales reps to learn how to minimize the generation of static electricity through product selection, available additives and construction details.

During winter conditions, you might find any surface made from TanDeck 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 TanDeck products.

## Warranty

Tangent Technologies LLC, the manufacturer of TanDeck 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 TanDeck products. However, the installer and/or purchaser of any TanDeck product is solely responsible for interpreting specific job conditions and determining the engineering design and suitability of end use and application of any TanDeck 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 TanDeck 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 1.7 [7/21/23] supersedes all other TanDeck technical data sheets.*

Material Property	Description of Test Method	ASTM	Value/Units
<b>Brittleness</b>	Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact	D746-07	No break at -40°F
<b>Density and Specific Gravity-Skin</b>	Standard Test Methods for Density and Specific Gravity of Plastics by Displacement	D792	60 lbs/cu.ft 0.0347 lbs/cu.in Specific Gravity: 0.96
<b>Density and Specific Gravity-Core</b>	Standard Test Methods for Density and Specific Gravity of Plastics by Displacement	D792	47.8 lbs.cu ft 0.0277 lbs/cu.in Specific Gravity: 0.77
<b>Hardness-Shore D</b>	Standard Test Method for Rubber Property—Durometer Hardness	D2240-Type D	66
<b>Abrasion Resistance</b>	Standard Test Method for Abrasion Resistance of Organic Coatings by Taber Abraser	D4060 CS17 Wheel 10,000 cycles 2.2lb load	Weight Loss 0.001 oz / 0.028g
<b>Ignition Temperature</b>	Standard Test Method for Determining Ignition Temperature of Plastics; Flash Point / Ignition Temperature	D1929-96	682°F
<b>UV: Effect on Hardness</b>	Standard Practice for Florescent UV Exposure of Plastics	D4329 & D2240	500 hrs: <1.0% Change in Hardness
<b>Chemical Resistance</b>	Standard Practices for Evaluation the Resistance of Plastics to Chemical Reagents	D543-06	Sea Water: 0.06% weight increase
<b>Chemical Resistance</b>	Standard Practices for Evaluation the Resistance of Plastics to Chemical Reagents	D543-06	Gasoline: <0.06% weight increase
<b>Chemical Resistance</b>	Standard Practices for Evaluation the Resistance of Plastics to Chemical Reagents	D543-06	No.2 Diesel: <2.61% weight increase

**Fiber Reinforced Lumber:** recycled HDPE with fiberglass filament reinforcement.

\* Estimated based upon relationship to elastic modulus.

\* Flexural stiffness & strength can be increased by adjusting reinforcement & processing conditions. Contact for additional info.

*Tangent Technologies, LLC, is a manufacturer of recycled plastic lumber. Tangent does not provide engineering services and assumes no responsibility, or liability, for any element of a projects design and/or construction details.*