



**ArmorTuf® NXT | ANXT, AXS, and AXSG**

**Product:**

ArmorTuf-NXT by Crane Composites is a high-impact resistant composite panel made with fiberglass reinforcement and specially formulated polyester resin. This product is value-engineered for maximum strength with the same benefits of ArmorTuf by utilizing Crane Composites' NexForce Technology.

**Purpose:**

ArmorTuf-NXT is specifically designed and formulated for use as a high impact interior liner and ceiling panel and exterior door skin for refrigerated seagoing containers.

**Table One: Physical Properties**

Typical Values			
Property	ANXT   0.075"	AXS and AXSG * 0.065"   Preliminary	Test Method
Flexural Strength	37 x 10 <sup>3</sup> psi 255 Mpa	42 x 10 <sup>3</sup> psi 290 Mpa	ASTM - D790
Flexural Modulus	0.9 x 10 <sup>6</sup> psi 6205 Mpa	0.88 x 10 <sup>6</sup> psi 6067 Mpa	ASTM - D790
Tensile Strength	47 x 10 <sup>3</sup> psi 324 Mpa	55 x 10 <sup>3</sup> psi 379 Mpa	ASTM - D638
Tensile Modulus	2.2 x 10 <sup>6</sup> psi 15,169 Mpa	2.1 x 10 <sup>6</sup> psi 14,479 Mpa	ASTM - D638
Barcol Hardness	50	50	ASTM - D2583
Coefficient of Linear Thermal Expansion	0.80 x 10 <sup>-5</sup> in/in/°F 14 µm/m/°C	0.80 x 10 <sup>-5</sup> in/in/°F 14 µm/m/°C	ASTM - D696
Thermal Conductivity	0.4 Btu•in/hr•ft <sup>2</sup> °F 5.0 cal•cm/hr•m <sup>2</sup> °C	0.4 Btu•in/hr•ft <sup>2</sup> °F 5.0 cal•cm/hr•m <sup>2</sup> °C	ASTM - C177
Water Absorption	0.2%/24hrs@77°F 25°C	0.2%/24hrs@77°F 25°C	ASTM - D570
Specific Gravity	1.75	1.75	ASTM - D792
Gardner Impact Strength	115 in-lb 13.0 J	110 in-lb 12.4 J	ASTM - D5420
Puncture Strength	390 lb 177 kg	370 lb 168 kg	Internal

\* This product is based on limited runs. Specifications and standards may change to enhance product performance, cosmetic qualities, and physical property strengths.

**Table Two: Physical Properties**

Product Code	Nominal Thickness	Nominal Weight	Finish	Size	Color
ANXT	0.075"   1.9 mm	0.48 lbs/ft <sup>2</sup>   2.34 kg/m <sup>2</sup>	Embossed	Available up to 104" (2.64 m) wide and up to 500' (152.4 m) in length	White   8318
AXS	0.065"   1.65 mm	0.48 lbs/ft <sup>2</sup>   2.34 kg/m <sup>2</sup>	Smooth		
AXSG			Smooth with Gelcoat Finish		

## SPECIFICATIONS

Crane Composites panels are manufactured in lengths and widths as required.

## COMPOSITION

**Reinforcement:** Random chopped fiberglass roving.

**Resin Mix:** Polyester/styrene copolymer and inorganic fillers and pigments.

## FINISHED PANEL QUALITY

1. Panels shall have a wear side with a pebble-like embossed finish (ANXT), smooth finish (AXS), or smooth gelcoated finish (AXSG). The backside shall be smooth. Backside imperfections, which do not affect functional properties, are not cause for rejection.
2. Physical properties shall be as set forth in Table 1.
3. Dimensions shall be as specified on purchase order, subject to the following tolerances:  
**Width:**  $\pm 1/8"$  ( $\pm 3.2$  mm)  
**Length:**  $\pm 1/8"$  ( $\pm 3.2$  mm) up to 12' (3.7 m)  
**Squareness:**  $\pm 1/8"$  (3.2 mm) in 48" (1.2 m) of width
4. Average thickness:  $\pm 10$  mils
5. Bulk Coil policy #6207 applies

## CERTIFICATIONS

Meets USDA/FSIS requirements

## FABRICATING RECOMMENDATIONS

**Note:** Protect your eyes with goggles; cover your nose and mouth with a filter mask; cover exposed skin when cutting CCI panels.

**Hand Fabricating:** Drilling—High speed drill bit (60° cutting angle, with 12°-15° clearance) or hole saw.

**Stapling:** Standard pneumatic stapler.

**Cutting:** Sheet metal shears or circular saw with reinforced carborundum or carbide-tipped blade.

**Production Fabricating:** Use carbide-tipped tools. Straight cuts can be sheared (90° cutting edge with 0.002" [0.05 mm] clearance) or sawed. For irregular cuts, use die punch or band saw.

**Painting Preparation:** To properly prepare the panel surface for painting, make sure the surface is clean, dry, and free from all oils, grease, silicones, dust, and other contaminants. Alkaline detergents or clean water may be used for this purpose. Sanding or roughening of the panel surface is recommended to achieve acceptable paint adhesion. Use 600 grit or finer sand paper or a 3M "Ultrafine" Scotch-Brite® pad should be used.

**Cleaning Instructions:** Available from CCI.

## DESIGN DATA NOTES

1. Bulk coil 200 linear feet (61.0 m) minimum. Bulk coil may be ordered in long lengths or in specific cut-to-size pieces. Crane Composites reserves the right to manufacture and ship total linear footage of long length bulk coils ordered within the following parameter lengths per piece:  
Max. 700' (210 m)  
Cut-to-size lengths 12' (3.7 m) and over of the same width will be interlapped (18"-36" [457.2 mm-914.4 mm] interlap per panel) into a coil for ease of handling and shipping. Total length tolerance - 0" and +6" (-0 mm and +152.4 mm).
2. Thread on the back of the panel identifies Crane Composites frp panel.

## STAINING STATEMENT

Some staining/discoloration may occur to frp liner panels after they have been in service for several years. This is a normal wear condition. As long as acceptable cleaning methods (i.e., steam cleaning) are used, the surface should remain sanitary and acceptable.

## STORAGE REQUIREMENTS

Crane Composites panels are designed for peak performance prior to and after the panels have been applied. Careful handling during the manufacturing process is important. Avoid excessive clamping, dropping and scraping. Keep contents dry. Store indoors in a well ventilated area. When outside storage is necessary, cover and protect from the weather and exposure to sunlight.

## PLEASE NOTE THE FOLLOWING PRODUCT USE INFORMATION:

Products manufactured by CCI will provide a clean, aesthetically pleasing finished installation. However, by nature, fiberglass reinforced plastic panels may occasionally have small areas that are aesthetically unacceptable for use. Panels should be inspected on-site prior to installation or lamination and original CCI skid tag/ticket number removed and retained. If any portion of material will not provide an acceptable appearance, CCI should be notified at once. Please report the non-conforming product utilizing the retained skid tag/ticket number. Upon verification of unacceptability, CCI will replace or refund the purchase price of the non-conforming product.

This product is not intended for Interior use that requires a class C fire rating.

