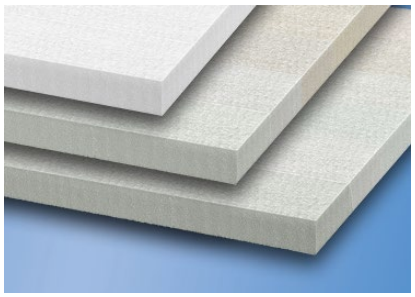
# AIREX® T92

GM--TDS-121

***Structural and Sustainable***

**DATA SHEET 01.2026 - Replaces 01.2025**

## DESCRIPTION



**AIREX® T92** is a closed-cell, thermoplastic and recyclable polymer foam with recycled content, very good mechanical properties, and an outstanding price / performance ratio.

It has an extraordinary resistance to fatigue, is chemically stable and has negligible water absorption. It is thermally stable during high temperature processing and post curing without after expansion or out-gassing. AIREX® T92 is designed for easy use with all resin systems and processing technologies.

**AIREX® T92** is ideally suited as a core material for a wide variety of lightweight sandwich structures subjected to static and dynamic loads and/or exposed to elevated temperatures during manufacturing.

## CHARACTERISTICS

- Easy to process with all types of resin and lamination processes
- High process temperature up to 150 °C (302 °F)
- Outstanding fatigue strength
- Best-in-class resin uptake with AIREX® Seal*X*[1)]
- Very high chemical stability
- Good adhesion (skin-to-core bond)
- Excellent long term thermal stability up to 100 °C (212 °F)
- No water absorption, after expansion nor out-gassing
- Recyclable and recycled material (up to 100 % recycled PET)
- Highly consistent material properties independent from variance in color
- Comprehensive material traceability (machine-readable batch information on each foam sheet)

## APPLICATIONS

- **Renewable energy:** Blades (shear webs & shells), nacelles
- **Marine:** Decks, hull sides, superstructures, bulkheads, transoms, interiors
- **Industrial:** Covers, containers, local reinforcements, x-ray tables, sporting goods
- **Automotive:** Truck body parts, floors

## PROCESSING[2)]

- Contact molding (hand/spray)
- Vacuum infusion
- Resin infusion / injection (VARTM / RTM)
- Adhesive bonding
- Pre-preg processing
- Compression molding (GMT, SMC)
- Thermoforming

[1)] AIREX® Seal*X* is a controlled surface treatment for minimum resin consumption

[2)] for details, please refer to AIREX® Processing Guidelines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AIREX®

3A COMPOSITES CORE MATERIALS

## MECHANICAL PROPERTIES

| Typical properties | | Unit (imperial) | Value[1] | AIREX® T92.60 | AIREX® T92.80 | AIREX® T92.100 | AIREX® T92.110 | AIREX® T92.130 | AIREX® T92.150 | AIREX® T92.200 | AIREX® T92.230 | AIREX® T92.280[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Density[5] | ISO 845 | lb/ft³ | Nominal<br>*Typ.range* | 4.1<br>*3.7 - 4.9* | 5.3<br>*5.0 - 5.6* | 6.2<br>*5.9 - 6.6* | 6.8<br>*6.2 - 7.1* | 8.4<br>*7.9 - 8.9* | 9.4<br>*8.9 - 9.7* | 13<br>*12.5 - 13.7* | 14.3<br>*13.7 - 240* | 17.5<br>*16.2 - 18.4* |
| Compressive strength perpendicular to the plane | ISO 844<br>ASTM C365 | psi | Typical<br>*Minimum* | 123<br>*109* | 188<br>*160* | 232<br>*195* | 246<br>*217* | 340<br>*275* | 380<br>*330* | 551<br>*464* | 725<br>*625* | 900<br>*810* |
| Compressive modulus perpendicular to the plane | ASTM C365 | psi | Typical<br>*Minimum* | 7'980<br>*6'530* | 10'880<br>*8'700* | 13'050<br>*9'425* | 13'780<br>*10'150* | 15'950<br>*13'050* | 18'850<br>*15'950* | 26'100<br>*21'750* | 31'185<br>*26'100* | 36'250<br>*33'350* |
| | ISO 844 B | psi | Typical | 10'150 | 13'050 | 14'500 | 15'950 | 19'580 | 21'750 | 29'730 | 33'360 | 40'610 |
| Tensile strength perpendicular to the plane | ASTM C297 | psi | Typical<br>*Minimum* | 218<br>*189* | 275<br>*203* | 330<br>*218* | 333<br>*225* | 340<br>*270* | 360<br>*290* | 413<br>*330* | 450<br>*360* | tbd |
| Tensile modulus perpendicular to the plane | ASTM C297 | psi | Typical<br>*Minimum* | 12'330<br>*10'880* | 13'050<br>*11'600* | 15'950<br>*13'050* | 16'680<br>*13'780* | 24'660<br>*18'850* | 26'110<br>*21'760* | 33'360<br>*27'550* | 36'260<br>*29'000* | *tbd* |
| Shear strength (both directions) | ISO 1922 | psi | Typical<br>*Minimum* | 80<br>*67* | 104<br>*94* | 130<br>*109* | 137<br>*116* | 190<br>*160* | 218<br>*180* | 290<br>*230* | 392<br>*245* | 435<br>*275* |
| Shear modulus (both directions) | ISO 1922 | psi | Typical<br>*Minimum* | 2'180<br>*1'740* | 3'190<br>*2'320* | 3'480<br>*2'900* | 3'770<br>*3'190* | 4'785<br>*3'625* | 6'090<br>*5'220* | 7'975<br>*6'960* | 10'560<br>*8'700* | 11'890<br>*10'150* |
| Shear elongation (both directions) | ISO 1922 | % | Typical<br>*Minimum* | 25<br>*15* | 23<br>*12* | 20<br>*10* | 15<br>*10* | 12<br>*8* | 10<br>*5* | 6<br>*4* | 5<br>*3* | 5<br>*3* |
| Thermal conductivity at 50 °F | EN 12667 | Btu.in/hr.ft².F | Typical | 0.257 | 0.208 | 0.236 | 0.243 | 0.257 | tbd | 0.312 | tbd | tbd |
| Colour | Visual | | | variable[6] | | | | | | | | |
| Standard sheet | Width[2] | in ± 0.2 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 40 |
| | Length[2] | in ± 0.2 | | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| | Thickness[4] | in ± 0.02 | | ⅛ to 4 | ⅛ to 4 | ⅛ to 4 | ⅛ to 4 | ⅛ to 4 | ⅛ to 4 | ⅛ to 4 | ⅛ to 4 | 0.2 to 2 |

Finishing Options, other dimensions and closer tolerances upon request. [1] Statistical minimum values; test sample thickness 3/4" except thermal conductivity 2". [2] Alternative width 24", alternative length 48". [3] Preliminary data. [4] Sheets with thickness lower than 5 mm for densities under 130 kg/m³ stricter tolerance of +/-0.2 mm and dedicated for micro-sandwich applications; [5] Seal*X* adds approx. 0.12 lb/ft³. [6] Depends on raw material batch.

The data provided gives approximate values for the nominal density and DNV-GL minimum values according to DNV-GL type approval certificate. Typical values are based on statistics over time. The information contained herein is believed to be correct and to correspond to the latest state of scientific and technical knowledge. However, no warranty is made, either expressed or implied, regarding its accuracy or the results to be obtained from the use of such information. No statement is intended or should be construed as a recommendation to infringe any existing patent.

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