



Finding reliable composite material data is *easy* with our powerful online database.

Prospector:Composites™ is an online, searchable database of composite material data sheets. It delivers a single location to obtain material data as well as quickly locate, compare and evaluate alternative candidate composites. In addition to manufacturer's supplied data, the database is populated with quality data from some of the world's foremost testing labs and research institutions, giving users information they can trust.

Composite AS4/3501-6 Unidirectional Prepreg (Fv=56 to 65%)
Hexcel Corporation - Carbon/Epoxy

General Information

Product Description
AS4/3501-6 unidirectional prepreg is a carbon/epoxy composite with general purpose structural applications.

General

- Fiber: AS4
- Matrix: 3501-6
- Fiber Supplier: Hexcel Corporation
- Matrix Supplier: Hexcel Corporation
- Fiber Volume Fraction: 56 to 65%
- Form(s): Unidirectional Prepreg
- Material Status: Commercial: Active
- Availability: Asia Pacific, Europe, North America, South America
- Cure Cycle: Cycle 1: Heat to 121°C in 30 min, hold for 18 h, cool to room temperature; Cycle 2: Heat to 121°C in 30 min, hold for 1 h, heat to 177°C in 30 min, hold for 2h, cool for room temperature
- Manufacturing Method: Tape Placement
- Data Source: Journal Article 1
- Data Rating: ★★★★★

Technical Properties 2

Mechanical	Normal Value	Unit	Test Method
Tensile Modulus			No Standard
E11 - Longitudinal, 63 % Fv ³	128	GPa	
E11 - Longitudinal, 63 % Fv ⁴	128	GPa	
E22 - Transverse, 65 % Fv ³	9.50	GPa	
E22 - Transverse, 65 % Fv ⁴	9.70	GPa	
Tensile Strength			No Standard
+S11 - Longitudinal, 63 % Fv ³	1800	MPa	
+S11 - Longitudinal, 63 % Fv ⁴	1800	MPa	
+S22 - Transverse, 65 % Fv ³	60.0	MPa	
+S22 - Transverse, 65 % Fv ⁴	59.0	MPa	
Shear Modulus			No Standard
G12 - In-Plane, 56 % Fv ³	5.00	GPa	
G12 - In-Plane, 60 % Fv ³	5.90	GPa	
Shear Strength			No Standard
S12 - In-Plane, 56 % Fv ³	72.0	MPa	
S12 - In-Plane, 60 % Fv ³	107	MPa	

- Search over 250 materials
- Sort and compare candidate materials
- Email and export results
- Access from anywhere

All data sheets include source information as well as a "Data Rating" to evaluate the quality of the data. Find just the data you need, or subscribe to the entire database. A wealth of information is within reach.

Features

- ✓ QuickSearch for direct navigation to a particular product
- ✓ Search by general properties such as fiber, matrix, supplier, forms
- ✓ Engineering specific search functionality
- ✓ Sort, compare, email and export results
- ✓ 250+ materials from sources like MIL-HDBK-17, AGATE, test labs and research papers/journal articles
- ✓ Built in conjunction with IDES, a market leader in material data management

Benefits

- ✓ Save valuable time spent searching for trustworthy composite material data
- ✓ Optimize your design by searching for alternative materials with desirable properties
- ✓ Improve reliability and maintainability through single source management of your composite material data
- ✓ Utilize the combined expertise of Firehole Technologies and IDES to enable thorough access to material data

Prospector:Composites is a product driven by customer demand. Many in the composites community tell us that finding reliable material data for their designs is a significant issue. This is especially true in industries where the use of composites is just emerging.

Jerad Stack
CEO, Firehole Technologies

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