



AEROSPACE: APPLICATIONS FOR COTTON AND NATURAL BASED COMPOSITES



WHY?

Cotton-based composite materials offer a sustainable solution for a wide range of applications requiring electrical insulation. These materials deliver functional benefits such as significantly reduced friction—making them ideal for components like brake parts in aircraft landing gear systems.

APPLICATION

VRI Composites' cotton-based materials, known as **Canevasite**, have been approved for aerospace use for several decades. Their durability, electrical insulation properties, and low-friction performance make them well-suited for a variety of demanding applications, including:

- +
- Reinforcement for lavatories and cargo panels
- +
- Reinforcement for storage bin
- +
- Cockpit parts (nose, window frames)
- +
- Landing gear parts

TECHNOLOGY

- +
- Fine cotton fabric laminate bonded with phenolic resin
- +
- Flame retardant resin satisfying FAR 25.853
- +
- Special grade available for best resistance to wear or for miniature parts



KEY PRODUCT: CANEVASITE PF CC

COTTON REINFORCED PHENOLIC LAMINATE

FEATURES

- Composite laminate made of **cotton cloth** and **high temperature** phenolic based resin system
- Approved by many OEMs specifications
- **Excellent mechanical** and **electrical properties**
- Flame retardant acc. FAR 25.853 12sec
- **Available as machined parts and tubes**



	Unit	Value
Mechanical properties		
Flexural strength	MPa	135
E-modulus	MPa	7500
Electrical properties		
Breakdown voltage //, 90 °C in oil	kV	24
Thermal/other properties		
Temperature index (TI)	°C	120
Thermal conductivity (ISO 8301)	W / m K	0.20
Friction coefficient	μ	0.3
12s Vertical flammability on 4mm specimens		
Burn length (AITM2-0002 B)	mm	1
After flame time (AITM2-0002 B)	s	0

Products	Composition	Application	Applicable specifications
Canevasite® PF CC 202 and CC 204	Cotton reinforced Phenolic	<ul style="list-style-type: none"> • FST interior parts and tubes • Laminated sheets • Parts for exterior: landing gear components 	<ul style="list-style-type: none"> • NEMA CE and LE • LN 40606 • AIMS 05-24-000 and AIMS 05-24-003 • NCT25-736-01 or MTL-5136
Canevasite® PF CC 60 HV	Cotton reinforced Phenolic	<ul style="list-style-type: none"> • Interior and parts for exterior (e.g. window frames) 	<ul style="list-style-type: none"> • MIL-I-24768

VRI COMPOSITES EUROPE

VRI Composites Deutschland GmbH
 Theodor-Sachs-Str.1
 86199 Augsburg
 Deutschland
 +49 0821 90 20

VRI Composites UK Ltd.
 Wharfedale Road
 Euroway Trading Estate
 Bradford, West Yorkshire
 BD4 6SG, UK
 +44 1274 68 77 77

