



# 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.

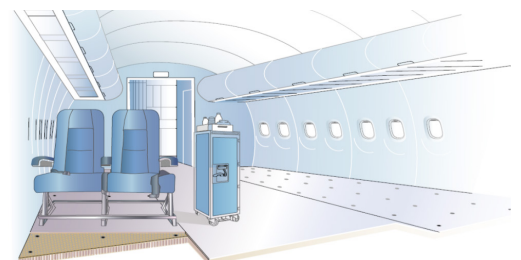
## APPLICATION

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
<b>Mechanical properties</b>		
Flexural strength	MPa	135
E-modulus	MPa	7500
<b>Electrical properties</b>		
Breakdown voltage //, 90 °C in oil	kV	24
<b>Thermal/other properties</b>		
Temperature index (TI)	°C	120
Thermal conductivity (ISO 8301)	W /m K	0.20
Friction coefficient	μ	0.3
<b>12s Vertical flammability on 4mm specimens</b>		
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"> <li>• FST interior parts and tubes</li> <li>• Laminated sheets</li> <li>• Parts for exterior: landing gear components</li> </ul>	<ul style="list-style-type: none"> <li>• NEMA CE and LE</li> <li>• LN 40606</li> <li>• AIMS 05-24-000 and AIMS 05-24-003</li> <li>• NCT25-736-01 or MTL-5136</li> </ul>
Canevasite® PF CC 60 HV	Cotton reinforced Phenolic	<ul style="list-style-type: none"> <li>• Interior and parts for exterior (e.g. window frames)</li> </ul>	<ul style="list-style-type: none"> <li>• MIL-I-24768</li> </ul>

### 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



VRI COMPOSITES IS NOW A DIVISION OF THE GUND COMPANY