Jaitec™

201 CARBON FIBRE

Manufactured in India, using technical know-how from
National Aerospace Laboratories (NAL),Bengaluru

'JAITEC' CARBON FIBRE PRODUCTS

Kemrock takes pride in commissioning India's first CARBON FIBER FACILITY with **Technical know-how from National Aerospace Laboratories, Bengaluru, under guidance of Council of Scientific and Industrial Research** which would serve the Defence, Aerospace & Commercial Grade Carbon Fibre sectors to lead the nation towards self-sufficiency in Carbon Fibre Technology. The initial manufacturing capabilities of 800 tpa will ensure the right quality of precursor (special acrylic fibre), aerospace, commercial grade carbon fibre and prepregs.

The carbon fibre manufacturing facility is fully integrated, which includes polymerization, wet spinning, oxidization & carbonization, all utilities effluent & waste management.

'JAITEC' OXIDIZED PAN FIBRE

During Carbon Fibre Production, precursor is oxidized to get OXIDIZED PAN FIBRE which has excellent fire resistant properties and is used for Fire Retardant Apparels, Aircraft Brakes, Protective Insulation in Aircraft Seat and Automotive Engine Compartment.

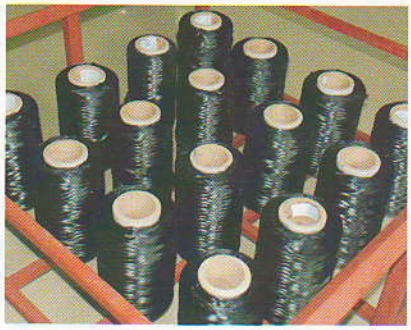
SPECIFIC FEATURES :

- Excellent Flame Retardant
- High Thermal Stability
- Physiological Harmlessness

Properties

	12k	24k
Density : glcc	1.34 - 1.38	1.34 - 1.38
Tensile Strength : MPa	180 - 220	180 - 220
%; Elongation	8 -12	8 -12
Diameter; Micron	13 -14	13 - 14
Composition; LOI, %	>40	>40%
Carbon; %	60 - 65	60 -65
Hydrogen; %	4 -5	4 - 5
Nitrogen; %	20 -22	20 - 22
Oxygen; %	8 - 12	8 - 12
Sodium; %	NIL	NIL
Trace Metals	NIL	NIL

'JAITEC' OXIDIZED PAN FIBRE PRODUCT (CF-J01)



Applications of 'JAITEC' OXIDIZED PAN FIBRE (CF-J01)

Apparel

'JAITEC' Oxidized fibers, single, standalone or in blends are used for Flame and heat resistant apparels.

Aircraft Brake

'JAITEC' Oxidized fibers find excellent application with conversion as carbon fibre composites in Aircraft brakes.

Protective Insulation

'JAITEC' Oxidized fibers are used as protective insulation in aircraft seat and automotive engine compartment.

'JAITEC' COMMERCIAL GRADE CARBON FIBRE

Commercial Grade Carbon Fibre is produced for the first time in India on commercial scale having following unique features :

- Lower Weight
- Excellent Mechanical Properties
- High Thermal Stability
- Low Coefficient of Thermal Expansion.

'JAITEC' COMMERCIAL GRADE CARBON FIBRE PROPERTIES

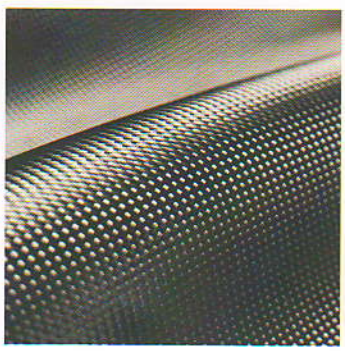
	12k	24k
Mass per unit Length: g/meter	0.8 - 0.85	1.6 - 1.7
Tensile Strength; GPa	2.0 - 3.0	2.0 - 3.0
Tensile Modulus; GPa	180 - 250	180 - 250
Elongation; %	1.0 - 1.5	1.0 - 1.5
Density; gm/cm^3	1.73 - 1.78	1.73 - 1.78
Filament Diameter; Micron	7 - 8	7 - 8
Sizing Content; %	<1.5	<1.5
Functional Properties	-	-
Chemical Composition	-	-
Carbon Content; %	>93	>93
Na + K;	NIL	NIL

'JAITEC' COMMERCIAL GRADE CARBON FIBRE PRODUCTS

SPOOL (CF-J02)

Carbon Fibre is available in spools upto 4 kg net weight per spool in the form of tows with each tow having 12000, 24000, filaments.

FABRICS (CF-J03)



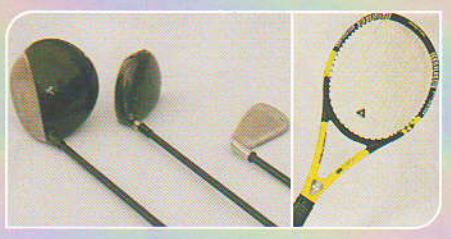
Carbon Fibre fabric upto 1200mm width is available, as Uni-Directional, Bi-Directional fabric.

Applications of 'JAITEC' COMMERCIAL GRADE CARBON FIBRE

Wind Energy

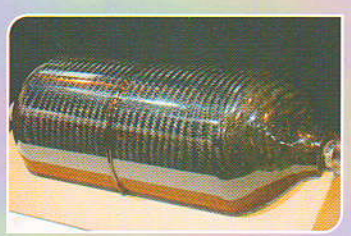
Automobile

Infrastructure



Sports

Offshore Drilling



Pressure Vessels

Caliper

Manufactured in India by, using technical know-how from **National Aerospace Laboratories (NAL)**,Bengaluru by:

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ISO 9001:2008 / ISO 14001:2004
OHSAS 18001:2007