



SUPERINDIA

ADVANCED COMPOSITE SOLUTIONS

ADVANCED CARBON FIBER SPAR CAPS

For Next-Generation
Wind Turbine Blades



ABOUT US

Superindia Composites Private Limited is an ISO 9001:2015 certified leader in India's fiberglass and composites industry. Operating from a 40,000 sq. meter facility in Goa with 200+ skilled professionals and 30+ years of expertise, we deliver **high-performance, Advanced composite solutions** for global wind energy markets.

Certifications:



AS 9100D
CERTIFIED

APQP 4 Wind[®]
Company Member 2025

Certified for Quality, Innovation & Global Standards



PRODUCT OVERVIEW

SUPERSPAR, our carbon Fiber Spar Caps provide **exceptional stiffness-to-weight ratios**, enabling longer, more efficient wind turbine blades. Manufactured using **advanced pultrusion processes**, they deliver consistent performance in onshore and offshore environments.

Key Features:

-  Very high tensile strength
-  Resistance to saline environments
-  Exceptional stiffness-to-weight ratio
-  Vibration absorption
-  Chemical corrosion resistance
-  High electrical conductivity
-  Dimensional stability and arrangement of the composite.
-  Packaging in rolls starting from 50 meters



TECHNICAL SPECIFICATIONS

Thermal Properties

Fiber volume percentage	65 +/-2
TG (Middle)	> 80°C

Mechanical Properties

Tensile Strength	1700 Mpa - 1900 Mpa
Tensile Modulus	140 Gpa - 150 Gpa
Short beam Strength	55 - 65 Mpa
Flexural Modulus (LengthWise)	130GPa
Strength	1200 - 1300Mpa
Straightness	Below 0.05mm/m length

Surface

Peel ply prepared	45 ± 10µm (lengthwise)
Roughness	65 ± 10µm (Widthwise)

Thermal & Durability Characteristics:



Operating Temperature Range:

- Epoxy-based systems: Up to 120°C.
- High-temperature resin systems: Up to 150°C.



Fatigue Resistant:

- Withstands millions of cycles



Corrosion Resistant:

- Ideal for offshore environments

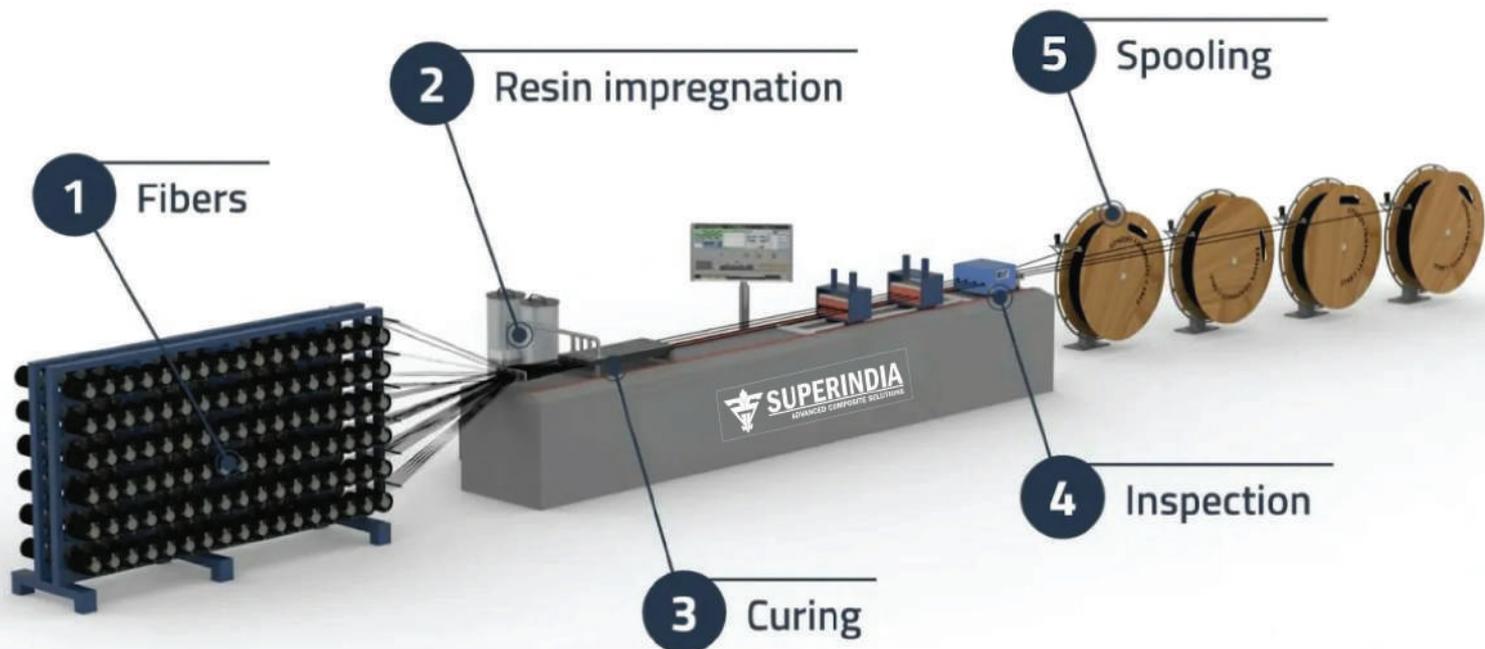
MANUFACTURING & LOGISTICS

Manufacturing Process – Pultrusion

- Efficient production of strong, lightweight, corrosion-resistant profiles
- Continuous production with minimal waste for consistent performance

Performance Benefits:

- 35% lighter than traditional materials
- Enables blades 100m+ for greater wind energy capture
- Improved stiffness-to-weight ratio enhances aerodynamic efficiency



Applications:

- Onshore & Offshore Wind Turbines | Repowering Projects

Logistics & Shipping:



Coiling

Spar caps can be coiled for efficient shipping and storage.



Packaging

Protective packaging to prevent damage during transit.



Delivery

Timely delivery schedules to meet production timelines.

CONTACT US

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