

Rovings for  
PULTRUSION  
& FILAMENT WINDING

## Advantex® glass

SE 8400 LS rovings are made of Advantex® glass fibres.

Advantex® glass is an electrical grade boron-free glass that shows significantly improved corrosion resistance across a wide range of aggressive environments. It is defined as an E-CR glass per ASTM D578 and ISO 2078 standards.

This translates into significant benefits over E glass; one of it being resistance to brittle fracture of composite insulators' cores when submitted to stress-corrosion induced by acid attack. Use of Advantex® glass leads to longer service life, higher safety margins and then material costs savings over traditional E-glass.

Also Advantex® glass contains neither boron nor added fluorides that makes this glass the recognized benchmark in the glass fibre industry for clean manufacturing.

Advantex® glass fibre formulation and manufacturing technology is a perfect example of integrated pollution prevention and the highest energy efficiency converging in an optimized process.

## SE 8400 LS Electrical Grade Glass Fibre

For the Highest Quality Composite Insulators



### Product description

SE 8400 LS rovings are Advantex® glass continuous single strands that are easily processable by pultrusion or filament winding thanks to their tailored binder chemistry.

SE 8400 LS rovings also show very low level of hollow fibres as a consequence of 3B's unique know-how in glass fiberizing.

As a result, SE 8400 LS made insulators' cores are passing acceptance criteria of core material tests of IEC 62217 that tells why

they are used in the manufacturing of hollow and solid composite cores of suspension, tension and line post overhead lines insulators, station post insulators, railways insulators and hollow core insulators designed according to their respective IEC standards.

3B's SE 8400 LS is also globally recognized as the highest quality glass when it deals with design of the most stringent requirements of Transmission insulators.

FEATURES	BENEFITS
Boron-free E-CR electrical glass	Provides stress-corrosion resistance and avoids brittle fracture of insulators as investigated by International Council on Large High Voltage Electric Systems (Working Group B2.03)
Fast wet-out (also in epoxy systems)	High productivity in pultrusion & filament winding processes
Very low level of hollow fibres	Acceptance at core material tests (dye penetration, water diffusion) as specified by IEC 62217 standard. Enables manufacturing of insulator types meeting IEC 61109:2008, IEC 61952:2008, IEC 62231:2006 & IEC 61462:2007.
Globally available	Get flexibility in manufacturing the highest quality composites insulators wherever you are.

## SE 8400 LS Electrical Grade Glass Fibre

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PRODUCT PORTFOLIO & GENERAL PROPERTIES				
Product name	Filament diameter µm	Linear density tex (gr/km)	Bobbin type	Packaging
SE 8400 LS	24	2400	C	On request
SE 8400 LS	24	4800	C	On request
SE 8400 LS	34	9600	C	On request
Fibre density 2.62 gr/cc				
Tensile Strength 2630 MPa ASTM D2343 (epoxy system Hexion L135i / H137i 71% glass weight)				
Tensile Modulus 75 GPa ASTM D2343 (epoxy system Hexion L135i / H137i 71% glass weight)				

### PACKAGING

All bobbins are wrapped with a protective film that improves handling and allows optimum transfer from bobbin to bobbin.

Type C bobbins refers to bobbin's weight up to 25kg.

Two types of packagings are available:

- Bulk-Pack: individual bobbins,
- Creel-Pack: connected bobbins for a continuous unwinding process and no bobbins' handling.

Standard pallets are 1150 mm x 1150 mm x 1200 mm (height), however 3B can support any Customer's request for tailored packaging.

### STORAGE

Storage in a cool and dry warehouse into the original packaging is formally recommended. More precisely ideal storage conditions are a temperature between 15°C and 35°C and a relative humidity comprised between 35% and 75%.

If these conditions are maintained, the glass fibre product should not undergo significant changes when stored for extended periods of time. It is also strongly recommended to condition it in the workshop for at least 24 hours before use to prevent condensation.

For an optimal processing we recommend to use the product in ambient conditions (20°C-23°C and a relative humidity of 60%-65%).



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the products and/or services described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement.

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