

Pultrusion  
Multi Resins Compatible

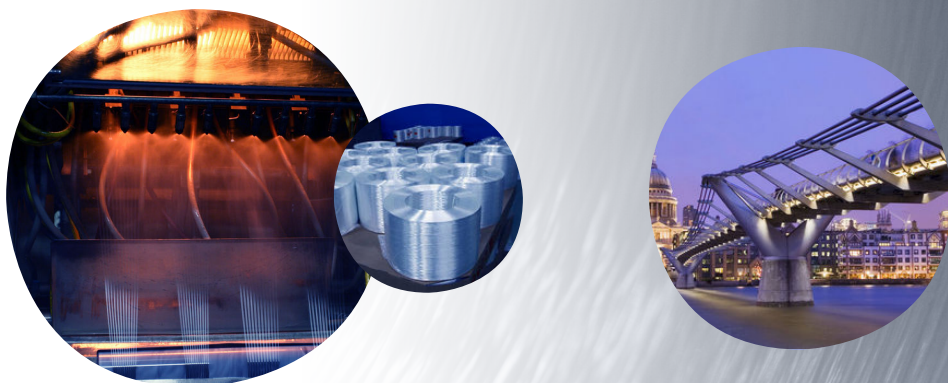
## Advantex® glass

Advantex® glass is a boron-free glass and presents significantly improved corrosion resistance across a wide range of aggressive environments. Advantex® glass is an E-CR glass in accordance with ASTM D578 and ISO 2078.

This translates into important benefits for end-users over traditional E glass: longer service life, larger safety coefficients for the same design, and material savings. Traditional E-glass includes boron and often contains added fluorides. By using new manufacturing technology to eliminate these components from the glass composition, Advantex® glass has become a benchmark for integrated pollution prevention and the highest energy efficiency – all in an optimized process.

3B measures its efforts and works continually to minimize its impact on the environment and to set new standards within the global fibreglass industry. This is our commitment.

## 399 Direct Rovings



### Product description

3B Direct Rovings consist of continuous filaments bonded into a single strand and wound onto a bobbin shape. A proprietary sizing applied on the fibres assures an excellent resin-to-glass bonding.

Corrosion resistant 399 Direct Rovings made of Advantex® glass are specifically designed for pultrusion process and are compatible with thermosets resins.

They are the materials of choice for the manufacturing of high quality profiles.

399 Direct Rovings made of Advantex® glass are also used in filament winding process under specific conditions; contact us for further assistance.

FEATURES	BENEFITS
Boron-free E-CR glass.	High corrosion resistance.
High thermal properties.	High resistance to fire propagation, high insulation properties.
Polyester, Vinylester & Epoxies compatible.	Maximum flexibility on workshops.
Low strand integrity.	High speed impregnation in pultrusion.
Globally available.	Get flexibility in manufacturing the highest quality wherever you are.

# 399 Direct Rovings

## PRODUCT PORTFOLIO & GENERAL PROPERTIES

Product name	Filament diameter µm	Linear density tex (gr/km)	Bobbin type	Packaging
399	17	1200	C	See below
399	24	2400	C	See below
399	24	4800	C	See below
399	34	9600	C	See below
Fibres's density	2.62 gr/cm³			
Fibres's CLTE	6.10 <sup>-6</sup> °K <sup>-1</sup>	(ASTM D696)		
	916°C	Softening point (ASTM D388)		
Tensile Strength	2200-2400 MPa	(ASTM D2343-08)		
Tensile Modulus	81-83 GPa	(ASTM D2343-08)		

## PACKAGING

Bobbins are individually wrapped with a stretched plastic film for protection, improved handling and to allow optimum transfer from bobbin to bobbin.

Nominal weight of C bobbins is 25 kg.

Two pallet configurations are available:

- Bulk-Pack: standard packaging, consists of individual bobbins.
- Creel-Pack: bobbins are connected together for continuous unwinding and no bobbins handling for operators.

For detailed informations on bobbins, on pallet's weight, dimensions and layout, please contact us.

## 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 it is recommended to use the product in ambient conditions (20°C-23°C and a relative humidity of 60%-65%).



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