

Long Fibre Thermoplastic
(LFT Pultrusion / D-LFT)
Continuous Fibre Thermoplastic
(Weaving / knitting)

E-CR glass

3B E-CR glass is boron-free and presents significantly improved corrosion resistance across a wide range of aggressive environments.

3B glass is E-CR according to 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, 3B E-CR 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 glassfibre industry. This is our commitment.

www.3B-fibreglass.com

SE 4220 (17µm) - Internal Pull

Direct Roving for Polyolefins Reinforcement



Product Description

SE 4220 corresponds to 3B's portfolio of direct roving glassfibre designed to reinforce polyolefins. Made out of E-CR glass, these direct roving fibres consist of continuous filaments bonded together into a single strand and wound into a cylindrical shaped bobbin.

SE 4220 (17µm) corresponds to an E-CR glass made direct roving whose strand consists of gathered 17µm diameter glass filaments for reinforcing polyolefins.

This 17µm filament diameter product offers the best compromise between mechanical performances and aptitude

for knitting/weaving in the case of Continuous Fibre Thermoplastics manufacturing. This is also the most common filament diameter in use for the production of LFT pellets or D-LFT parts.

SE 4220 (17µm) is compatible with both polyethylene (PE) and polypropylene (PP).

SE 4220 (17µm) direct roving is internal/inside pull and is available in 1200 tex and 2400 tex linear densities.

Please contact us for grades that are not yet part of SE 4220 product portfolio.

FEATURES	BENEFITS
Excellent compatibility with various polyolefins	One fits all
Excellent impregnation	Low unwinding tension required
Outstanding spreadability	Low fuzz generation for less clean up and improved process efficiencies
	Very good fabric aspect
	Very good dispersion in the final parts/pellets
	Superior pelletization quality
17µm filament diameter	Best compromise between process and mechanical performances

SE 4220 (17 μ m) - Internal pull

Direct Roving for Polyolefins Reinforcement

PRODUCT PORTFOLIO

Product Name	Filament Diameter	Linear Density		# filaments per strand	Favoured unwinding	Favoured process
	μ m	tex	yield			
SE 4220	17	1200	413	2000	internal pull	LFT Pultrusion Weaving/Knitting
SE 4220	17	2400	207	4000	internal pull	LFT Pultrusion D-LFT

FIBRE PROPERTIES

Density	CLTE (ASTM D696)	Tensile Strength (ASTM D2343-08)	Tensile Modulus (ASTM D2343-08)	Tensile Strain (ASTM D2343-08)
2.62 gr/cm ³	6.10 ⁻⁶ K ⁻¹	2200-2400 MPa 319-348 ksi	81 GPa 11748 ksi	2.7 - 2.9%

PACKAGING

Standard packaging of SE 4220 1200 tex consists of:
1150 mm x 1150 mm x 1200 mm (45.3 in x 45.3 in x 47.2 in)
(L x w x h) pallet containing individual bobbins (Bulk-Pack®).
Pallet configuration displays 44 individual bobbins, evenly
distributed on 4 layers, leading to a net weight close to 1050 kg
(2317 lb). Bobbin average weight is around 24 kg (53 lb).

Standard packaging of SE 4220 2400 tex consists of:
1150 mm x 1150 mm x 1200 mm (45.3 in x 45.3 in x 47.2 in)
(L x w x h) pallet from where 12 strands of glass fibre are ready
to be used for feeding the production line (Creel-Pack®).
Bobbins are spliced together enabling continuous unwinding
for better productivity and no bobbins handling for better operator's
safety. Pallet's net weight is around 1100 kg (2317 lb).

Please contact us for other types of 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 (59°F) and 35°C (95°F)
and a relative humidity comprised between 35% and 75%. If
these conditions are maintained, the glassfibre 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 (20-23°C / 68-73°F, and a relative humidity
of 60-65%).

Binani **3B** the fibreglass company

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