



Product details

DELfib - ST:	Compostable compound for fiber
Applications:	Partially orientated yarn (POY), fully drawn yarn (FDY), staple fibers, and continuous filament, etc.
Suitable for:	Fiber melt spinning and drawing equipment



Properties

Properties	Standard	Unit	Value
MFR (190°C/2.16 kg)	ASTM D 1238	g/10 min	2-4
Specific gravity	ASTM D 792	g/cm ³	1.25
Tensile strength	ASTM D 882	MPa	20-30
Tensile Elongation	ASTM D 882	%	>200
Dart Impact	ASTM D 1709	gm	250-300
Melt point	ASTM D 3418	°C	120-160
Heat deflection temperature	ASTM D 648	°C	65

Note:

This material is specifically made to be extruded using standard fiber spinning and drawing equipment into continuous filament or mechanically drawn staple fibers. It works well with minimal shrinkage requirements in fiber manufacturing processes, such as those using staple fibers, continuous filament, fully drawn yarn (FDY), and partially oriented yarn (POY). Because of its versatility, DELfib-ST can be transformed into a wide variety of fiber products. To control shrinkage, high filament velocity or drawing are required, as well as a controlled heat setting.

The values listed have been established on standardized test specimens at standard temperature and humidity conditions. It is valid only for Deltora's material in their original packing. It should not be mixed with any foreign material except recommended masterbatches by Deltora.

It should be stored in a dry and closed environment in their original packing. The shelf life is 6-8 months, when it is stored in its original packing, at room temperature and closed room environment. If the material is kept open to direct sunlight, moist/humid environment or high temperature; it can influence the material quality significantly. It should be open at the time of use only and should be used immediately.

The figures should be regarded as guide values only and it is based on our trial results and knowledge. Under certain conditions, the properties can be influenced to a significant extent by the processing conditions. This information does not exempt processors and users from their responsibility to conduct their own testing and inspections for each specific case. This information cannot be used to make a legally binding assurance about certain qualities for a specific unique case. Please contact us before starting production for more details about processing and for any customization.





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Processing guide

Processing recommendations

Drying:

- It should be pre-dried on hot air dryer at 65-70°C for 2-3 hours before using it.
- In case the product becomes too humid, drying at 55-60°C for 4 h by using a vacuum dryer or purging with dry air.

Equipment:

- Our materials are designed for standard conventional fiber spinning and drawing equipment.

Start-up:

- Purge with polyolefin before starting production.
- Set the temperature to recommended settings before starting the production.
- Never start with higher temperatures, it may burn and produce fumes rapidly, may cause harm to machine.

Safety precautions:

- Processing at a melt temperature not higher than 240 °C.
- Processing with adequate ventilation.

Handling:

- Keep package sealed until use.
- Reseal opened package directly after use.

Interruption & shut-down:

- Never leave the material in the barrel for a longer period.
- By interruption for a considerable time, the material may get burn; purge out all the material from the barrel.
- If the material kept for a longer period in the barrel, purge with polyolefin and follow again start-up procedure.

Temperature profile

Grade	Processing temperature range
DELfib - ST	160–200 °C (starting with lower temperature)