



DElExt – 3D

Technical description

Product details

DElExt – 3D:	Compostable compound for 3D printing filament
Applications:	3D printing filament
Suitable for:	Filament Extrusion



Properties

Properties	Standard	Unit	Value
MFR (190°C/2.16 kg)	ASTM D 1238	g/10 min	4-6
Specific gravity	ASTM D 792	g/cm ³	1.25-1.30
Tensile strength	ASTM D 882	MPa	40-50
Tensile Elongation	ASTM D 882	%	5-6
Notched Izod Impact Strength	ASTM D 256	J/m	10-15
Melt point	ASTM D 3418	°C	150-160
Glass transition temperature	ASTM D 3418	°C	55-60

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.



DElExt – 3D Processing guide

Processing recommendations

Drying:

- It should be pre-dried on hot air dryer at 60-65°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 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 230 °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	Screw speed [rpm]	Die/Adapter Temperature	Metering zone	Compression zone	Feed zone	Hopper (Towards Feed zone)	3D Printing temperature
DElExt – 3D	20 to 130	200 °C	200 °C	180-190 °C	170-180 °C	45°C	190-220 °C

