

Trifilon BioLite® 4

Natural Fiber Reinforced Polypropylene

CAS NR. PP: 9003-07-0

1. Designation of product, preparation and manufacturer

1.1 Trade name:	Trifilon BioLite4
1.2 Use of product:	Plastic compound for manufacture of injection moulded parts.
1.3 Manufacturer:	Trifilon AB Blommenhovsvägen 26 611 39 Nyköping Sweden Emergency Phone Number: +46 (0) 70 666 77 63
1.4 Type of machine equipment:	Designed for use on standard screw injection molding machine with open nozzle and non-return flow valve.

2. Processing conditions for injection moulding

2.1 Processing Temperatures:	Values	Units
Feeding zone	40	°C
Zone 1	150	°C
Zone 2	170	°C
Zone 3	180	°C
Zone 4	185	°C
Machine nozzle	190	°C
Mass temperature	190	°C
Hot runner	190	°C
Mould temperature	20-50	°C

3. Machine settings for injection molding

3.1 Machine settings:	Values	Units
Screw RPM	>10	-
Back pressure	30-80	bar
Shot volume	1-3 D	-
Max. injection pressure	>1000	bar
Injection speed	Medium	-
Holding pressure level	40-70	%
Holding pressure time	10-30	sec
Melt cushion (of volume)	5-10	%
Cooling time	10-50	sec

General advice: We recommend cold runner systems and suitable sprue, gate and venting design to enable the optimal filling of the mold with a natural fiber reinforced polymer. If a hot runner system is used, we recommend an open gate design with a minimum gate diameter of 1mm. Non-tapered pin or parallel valves are recommended over tapered gates.

4. Machine cleaning advice

- | | |
|--------------------------|--|
| 4.1 Prior to production: | To ensure optimal results, purge injection molding machine with PP or relevant purging compound. |
| 4.2 During production: | Ensure that tooling and screw zones are set to the recommended temperatures. If tool is not filled, increase temperature stepwise. Material has a tendency to burn and therefore needs a constant melt flow. Avoid temperatures above 210°C as natural fibers in compound will begin to rapidly degrade, leading to a decrease in mechanical properties. |
| 4.3 Post production: | Ensure that injection molding machine is purged with PP or relevant purging compound. |
| 4.4 General advice: | To avoid risk of material degradation and possible risk of pyrolysis, the dwell time of the material inside the machine should be minimized as much as possible. |

5. Tooling maintenance advice

- | | |
|--------------------------|---|
| 5.1 Prior to production: | To ensure optimal results, apply a conventional mold release to the tooling prior to production. |
| 5.2 During production: | BioLite resins may leave hemp residuals on the tooling surface. These residuals are non-toxic, non-corrosive, non-oxidative and can be removed with a standard cold degreasing agent. |
| 5.3 Post production: | To remove any hemp residuals from the tooling surface, use a standard cold degreasing agent in combination with a mildly abrasive scouring pad or cloth. Follow the instructions provided with the standard degreasing agent. |
| 5.4 General advice: | BioLite resins may leave hemp residuals on general purpose tooling steel (e.i. P20). These residuals do not damage the tooling surface and can be removed with a standard degreasing agent. |

6. Storage and drying conditions

- | | |
|---|---|
| 6.1 General advice: | Trifilon BioLite4 is a natural fibre reinforced thermoplastic compound based on polypropylene. Residual moisture content of more than 0.3 % can result in evaporation during the injection process or in condensed moisture on the mould. To avoid problems related to evaporation, ensure material is thoroughly dried prior to use. |
| 6.2 Storage conditions: | Store in a cool, dry location. Ensure good housekeeping practices during storage, transfer and handling of material. Keep octabins and big bags closed to prevent contamination. Opened goods should be used immediately or adequately resealed to avoid moisture uptake and contamination. |
| 6.3 Storage conditions for finished products: | It is recommended to store the finished goods in a cool, dry place. Depending on the storage conditions and processing conditions used to mold the products, storage time may vary. Trifilon AB cannot provide any shelf life guarantees for finished goods. It is recommended that customers perform their own storage tests to adapt to their product and general storage environments. |
| 6.4 Drying advice: | To ensure optimal results, drying is recommended at 80 °C for a period of 2 - 4 hours using a desiccant dryer. The recommended drying time can vary depending on storage conditions of material. |

Legal notice

The above listed figures should be regarded as informational guide values only. Under certain conditions the material properties can be influenced to a significant degree by the processing methods and conditions. Neither Trifilon nor its distribution partners are responsible or liable for the accuracy of the information provided above. Neither Trifilon nor its distribution partners be responsible for the use of this information or any product, method or processing equipment described in this document. Any material properties and characteristics of products supplied by Trifilon, including technical advice on applications whether verbally, in writing or by testing the product, is given to the best of our knowledge. It does not exempt the buyer from carrying out their own investigations and tests in order to ascertain the product's specific suitability for the purpose intended. The buyer is solely responsible for the application, utilization and processing of the product, and must observe the laws and government regulations and the consequential rights of third parties. Trifilon expressly advises against the use of this product in any medical, pharmaceutical or diagnostic application. At all times our Conditions of Sale apply. The brands "Trifilon" and "Trifilon BioLite" are registered trademarks of Trifilon AB, according to the international 'Nice-Classifications' (NCL9), 01, 09, 12.