

Processing advice

Product name: Biograde® C 5509 CL
Date of issue: 03 May 2016

Version: 1.0

Designation of product, preparation and manufacturer

Trade name: Biograde® C 5509 CL

Use of product: Partly biobased polymer compound suitable for transparent injection moulding applications. The biobased carbon content (BCC) is > 60 % (calculated).

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Processing conditions for injection moulding

Machine equipment: Standard screw, open nozzle.

Machine settings:

Feeding Zone	60	[°C]
Zone 1	190	[°C]
Zone 2	190	[°C]
Zone 3	200	[°C]
Machine nozzle	200 - 220	[°C]
Mould temperature	30 - 65	[°C]
Holding pressure level	40 - 80	[%]
Melt cushion (of volume)	< 10	[%]
Cooling time	~ 10	[s]
Max. dwell time	300	[s]

General advice: We recommend to use cold runner systems.
Use high injection speed. Short holding pressure and cooling times can be used. To avoid burning (diesel effect) at high injection speeds venting at the flow path is recommended. The flow front should continuously move forward to avoid freezing effects.
Regrind sprues and runners can be reused at 20%.

Purging advice: injection moulding

Before production: Purge the plastification unit and, if existing, the hot runner with PP, PE or purging compound.

During production: Heat tools and plastification unit to the recommended temperature. If tool is not filled, increase temperature stepwise. Material has a tendency to degrade and therefore needs a constant melt flow.

After production: Purge the plastification unit and, if existing, the hot runner with PP, PE or purging compound.

Important information: The dwell time of the material inside the machine shall be reduced to a minimum in order to lower the risk of degradation.

Drying conditions and storage

General: Biograde® is a biodegradable plastic based on cellulose. Residual moisture content of more than 0.2 % can result in hydrolysis and evaporation in the injection unit or in condensed moisture on the mould.

Drying: Drying is recommended at 60°C for a period of 2 - 4 hours. Do not overheat the material and do not

Storage conditions: If not specified otherwise product life is 6 month after shipment from Sellers warehouse if product is in its original packaging, stored under dry (max. 70% relative humidity) and dark conditions (not exposed to sunlight at a temperature of 5 °C to max. 30°C (ambient temperature)). It is important to observe that a major drop in external air temperature (e.g. during transportation) can result in a development of water condensate. Prior to the processing of the material, it should be ensured that there is no condensate on the packaged product.

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Storage conditions for finished products: Finished products made from Biograde[®] must be stored dry and cold. It is recommended to wrap goods in black PE liners to protect them against moisture and UV radiation. Storage time depends on processing parameters and of climate conditions in the respective area. Because of these essential and complex interacting parameters, FKUR Kunststoff GmbH cannot give any shelf life guarantees for finished products. Please notice that the conditions mentioned above depend on experience of our customers. Each customer should execute individual storage tests according to product specifications and storage requirements.

Legal notice

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