

Processing advice

Product name:

Bio-Flex[®] S 5630

Date of issue: 26.10.2010

(prev. Bio-Flex[®] V 1644)

Version: 1.0

Page 1 / 2

1. Designation of product, preparation and manufacturer

| | |
|---------------------|---|
| 1.1 Trade name: | Bio-Flex [®] S 5630 |
| 1.2 Use of product: | Biodegradable compound for thermoforming and injection moulding |
| 1.3 Manufacturer: | FKuR Kunststoff GmbH Siemensring 79 D - 47 877 Willich Phone: + 49 (0) 2154 / 92 51-0 Fax: + 49 (0) 2154 / 92 51-51 Mail: info@fkur.com Web: www.fkur.com |

2. Processing conditions for cast film extrusion

| | | | |
|-----------------------|-----------------------------------|---------|------|
| 2.1 Machine equipment | Standard Polyolefin castfilm line | | |
| 2.2 Machine settings: | Zone 1 | 150 | [°C] |
| | Zone 2 | 170 | [°C] |
| | Zone 3 | 180 | [°C] |
| | Zone 4 | 185 | [°C] |
| | Adaptor | 170 | [°C] |
| | Die | 180 | [°C] |
| | Calender Roll | 20 - 50 | [°C] |

3. Processing conditions for injection moulding

| | | | |
|------------------------|--|-----------|----------------------|
| 3.1 Machine equipment: | Standard screw with non-return flow valve, open nozzle | | |
| 3.2 Machine settings: | Zone 1 | 130 | [°C] |
| | Zone 2 | 150 | [°C] |
| | Zone 3 | 170 | [°C] |
| | Machine nozzle | 180 | [°C] |
| | Mould temperature | 30 - 65 | [°C] |
| | Holding pressure level | 40 - 60 | [%] |
| | Melt cushion (of volume) | < 10 | [%] |
| | Cooling time | 15 | [s] |
| | max. Dwell time | 300 | [s] |
| | Density | 1.55 | [g/cm ³] |
| | Bulk density | 895 | [kg/m ³] |
| | MFR (190 °C/2.16 kg) | 10 - 12 | [g/10 min] |
| | Shrinkage | 0.4 - 0.5 | [%] |
| 3.3. General advice: | Process parameters are comparable to PP. We recommend cold runner systems. | | |

Processing advice

Product name:

Bio-Flex® S 5630

Date of issue: 26.10.2010

(prev. Bio-Flex® V 1644)

Version: 1.0

Page 2 / 2

4. Purging advice

- 4.1 Before production: Purge the plastification unit and, if existing, the hot runner with PP or purging compound.
- 4.2 During production: Heat tools and plastificator unit up to the recommended temperature. If tool is not filled, increase temperature stepwise.
- 4.3 After production: Purge the plastification unit and, if existing, the hot runner with PP or purging compound.
- 4.4 Important information: The dwell time of the material inside the machine shall be reduced to a minimum in order to lower the risk of pyrolysis.

5. Drying conditions and storage

- 5.1 General: Bio-Flex® S 5630 is a biodegradable compound for thermoforming and injection moulding. Residual moisture content of more than 0.2 % can result in evaporation during the injection process or in condensed moisture on the mould.
- 5.2 Drying: Drying is recommended at 60 °C for a period of 2 - 4 hours.
- 5.3 Storage conditions: The material shall be stored in a dry and cool place. Opened octabins should be used immediately or adequately resealed to avoid moisture uptake.
- 5.4 Storage conditions for finished products: Finished products made from Bio-Flex® should be stored dry and cold. Storage time depends on processing parameters and on climate conditions in the respective area. FKUR Kunststoff GmbH cannot give any shelf life guarantees for finished goods. Please notice that the conditions mentioned above depend on experiences of our customers. We recommend that each customer executes individual storage tests according to his product specifications and storage requirements.

6. Legal notice

- 6.1 General: Neither FKUR Kunststoff GmbH nor its marketing affiliates shall be responsible for the use of this information or of any product, method or equipment mentioned. Customers must undertake their own determination of this product's suitability and completeness for their own use, for the protection of the environment, for the health and safety of their employees and purchasers of their products. No warranty is made of the merchantability or fitness of any product, and nothing herein waives any of the seller's conditions of sale.