BIOTEC

Last Updated May 25, 2023

## Contents






BIOTEC Biologische Naturverpackungen GmbH & Co. KG · Werner-Heisenberg-Str. 32 · D.46446 Emmerich **T** +49 2822 92510 **W** biotec.de

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Last Updated May 25, 2023

**Preliminary Data Sheed**
BIOPLAST 800

| Properties | | | |
|---|---|---|---|
| **Parameters** | **Target Value** | **Unit** | **Descriptions** |
| Material Density | 2 | g/cm³ | EN ISO 1183 |
| MFR (160°C, 5 kg) | 5.2 | g/10 min | EN ISO 1133 (160 °C, 5 kg) |
| MFR (190°C, 5 kg) | 11 | g/10 min | EN ISO 1133 (190 °C, 5 kg) |
| Moisture Content | < 0,15 | weight % | Biotec test directive based on EN ISO 15512 |
| Biobased carbon share | > 60 | % | ASTM D6866 or ISO 16620-2 (TC) |

Mechanical Properties

| **Parameters** | **Target Value** | **Unit** | **Parameters** | **Target Value** | **Unit** |
|---|---|---|---|---|---|
| Strain at strength | 2 | % | Charpy impact strength average | 2 | kJ/$m^2$ |
| Thickness | 245 | $\mu$m | Flexural modulus | 7441 | MPa |
| Tear resistance | 1501 | mN | Flexural stress at break | 76 | MPa |
| Tear resistance | 153 | g | Flexural strain at break | 2 | % |
| Tear resistance | 1 | g/$\mu$m | Flexural stress at conventional deflection | 6 | MPa |
| Tear resistance | 6 | KJ/m² | Flexural strength | 77 | MPa |
| Oblique tear | 0 | % | Flexural strain at flexural strength | 2 | % |
| Thickness | 245 | $\mu$m | Tensile modulus | 6271 | MPa |
| Tear resistance | 1610 | mN | Stress at yield | n/a | MPa |
| Tear resistance | 164 | g | Strain at yield | n/a | % |
| Tear resistance | 1 | g/$\mu$m | Stress at break | 47 | MPa |
| Tear resistance | 7 | KJ/m² | Nominal strain at break | n/a | % |
| Oblique tear | 0 | % | Strain at break | 2 | % |
| Heat deflection temperature (HDT) | 65 | °C | Strength | 47 | MPa |

| Compostable Certification | | | |
|---|---|---|---|
| **Certification** | **Target Value** | **Unit** | **Standart** |
| OK Compost INDUSTRIAL | 275 | $\mu$m | EN 13432 |
| OK compost HOME | n/a | $\mu$m | Certification program of TUV Austria |



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**Preliminary Data Sheed**
BIOPLAST 105

## Properties

| Parameters | Target Value | Unit | Descriptions |
|---|---|---|---|
| Material Density | n/a | g/cm³ | EN ISO 1183 |
| MFR (160°C, 2.16 kg) | | g/10 min | EN ISO 1133 (160 °C, 2.16 kg) |
| MFR (190°C, 2.16 kg) | 4.1 | g/10 min | EN ISO 1133 (190 °C, 2.16 kg) |
| Moisture Content | < 0,2 | weight % | Biotec test directive based on EN ISO 15512 |
| Biobased carbon share | 67 | % | ASTM D6866 or ISO 16620-2 (TC) |

## Mechanical Properties

| Parameters | Target Value | Unit | Parameters | Target Value | Unit |
|---|---|---|---|---|---|
| Strain at strength | n/a | % | Charpy impact strength average | n/a | kJ/$m^2$ |
| Thickness | n/a | $\mu$m | Flexural modulus | n/a | MPa |
| Tear resistance | n/a | mN | Flexural stress at break | n/a | MPa |
| Tear resistance | n/a | g | Flexural strain at break | n/a | % |
| Tear resistance | n/a | g/$\mu$m | Flexural stress at conventional deflection | n/a | MPa |
| Tear resistance | n/a | KJ/m² | Flexural strength | n/a | MPa |
| Oblique tear | n/a | % | Flexural strain at flexural strength | n/a | % |
| Thickness | n/a | $\mu$m | Tensile modulus | n/a | MPa |
| Tear resistance | n/a | mN | Stress at yield | n/a | MPa |
| Tear resistance | n/a | g | Strain at yield | n/a | % |
| Tear resistance | n/a | g/$\mu$m | Stress at break | n/a | MPa |
| Tear resistance | n/a | KJ/m² | Nominal strain at break | n/a | % |
| Oblique tear | n/a | % | Strain at break | n/a | % |
| Heat deflection temperature (HDT) | n/a | °C | Strength | n/a | MPa |

## Compostable Certification

| Certification | Target Value | Unit | Standart |
|---|---|---|---|
| OK Compost INDUSTRIAL | 100 | $\mu$m | EN 13432 |
| OK compost HOME | n/a | $\mu$m | Certification program of TUV Austria |



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**Preliminary Data Sheed**
BIOPLAST GS 2189

| Properties | | | |
|---|---|---|---|
| **Parameters** | **Target Value** | **Unit** | **Descriptions** |
| Material Density | 1.36 | g/cm³ | EN ISO 1183 |
| MFR (190°C, 2.16 kg) | 29 | g/10 min | EN ISO 1133 (190 °C, 2.16 kg) |
| Moisture Content | < 0,15 | weight % | Biotec test directive based on EN ISO 15512 |
| Biobased carbon share | 69 | % | ASTM D6866 or ISO 16620-2 (TC) |

| Mechanical Properties | | | | | |
|---|---|---|---|---|---|
| **Parameters** | **Target Value** | **Unit** | **Parameters** | **Target Value** | **Unit** |
| Strain at strength | 2 | % | Charpy impact strength average | 4 | kJ/$m^2$ |
| Thickness | 260 | $\mu$m | Flexural modulus | 2417 | MPa |
| Tear resistance | 5297 | mN | Flexural stress at break | n/a | MPa |
| Tear resistance | 540 | g | Flexural strain at break | n/a | % |
| Tear resistance | 2 | g/$\mu$m | Flexural stress at conventional deflection | 62 | MPa |
| Tear resistance | 20 | KJ/m² | Flexural strength | 64 | MPa |
| Oblique tear | 0 | % | Flexural strain at flexural strength | 4 | % |
| Thickness | 268 | $\mu$m | Tensile modulus | 2332 | MPa |
| Tear resistance | 2723 | mN | Stress at yield | 41 | MPa |
| Tear resistance | 278 | g | Strain at yield | 2 | % |
| Tear resistance | 1 | g/$\mu$m | Stress at break | 31 | MPa |
| Tear resistance | 10 | KJ/m² | Nominal strain at break | 7 | % |
| Oblique tear | 0 | % | Strain at break | n/a | % |
| Heat deflection temperature (HDT) | 53 | °C | Strength | 41 | MPa |

| Compostable Certification | | | |
|---|---|---|---|
| **Certification** | **Target Value** | **Unit** | **Standart** |
| OK Compost INDUSTRIAL | 418 | $\mu$m | EN 13432 |
| OK compost HOME | n/a | $\mu$m | Certification program of TUV Austria |



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