



Technipol® Bio 707Polyester

Sipol spa Società Italiana Polimeri

Technipol® Bio 707 is a totally biodegradable thermoplastic adhesive with low melting point.

It is used in various industrial fields like footwear industry, for toe-puff and counters production, and textile industry for bonding substrates that are sensitive to the exposure tomedium-high temperatures; furthermore it can be used as basic material for compounds used in extrusion and/or moulding of biodegradable products.

Technipol® Bio 707 contains more than 60% of raw materials coming from renewable resources (no food grade).

In the manufacturing process of Technipol® Bio 707 no organo-tin compounds have been used.

Polymer: PolyButylenSebacate.

| Rheological properties | Value | Unit | Test Standard |
|----------------------------|-------|------------------------|-----------------|
| ISO Data | | | |
| Melt volume-flow rate, MVR | 35 | cm ³ /10min | ISO 1133 |
| Temperature | 160 | °C | - |
| Load | 2.16 | kg | - |
| Molding shrinkage, normal | 1.6 | % | ISO 294-4, 2577 |
| Melt Flow Index, MFI | 39 | g/10min | ISO 1133 |
| MFI temperature | 160 | °C | - |
| MFI load | 2.16 | kg | - |

| Mechanical Properties | Value | Unit | Test Standard |
|---|-------|------|---------------|
| ISO Data | | | |
| Stress at Break | 16 | MPa | ISO 527 |
| Strain at Break | 370 | % | ISO 527 |
| Flexural Modulus (23°C) | 288 | MPa | ISO 178 |
| Compression Set under constant strain, 23°C | 33 | % | ISO 815 |
| Compression Set under constant strain, 70°C | 46 | % | ISO 815 |
| Abrasion resistance | 95.6 | mm³ | ISO 4649 |
| Shore Hardness D (15s) | 54 | - | ISO 868 |

| Thermal Properties | Value | Unit | Test Standard |
|---|-------|------|----------------|
| ISO Data | | | |
| Melting Temperature (10°C/min) | 64 | °C | ISO 11357-1/-3 |
| Glass Transition Temperature (10°C/min) | -47 | °C | ISO 11357-1/-2 |
| Vicat softening temperature A | 58 | °C | ISO 306 |

| Other Properties | Value | Unit | Test Standard |
|-------------------------|-------|-------|---------------|
| ISO Data | | | |
| Density | 1130 | kg/m³ | ISO 1183 |
| Biobased carbon content | 60 | % | - |

Characteristics

Processing

Injection Molding, Other Extrusion

Certifications

Contains renewable resources, Biodegradable, Food approval, Food approval 10/2011, Food Contact (FDA)

Features

Copolymer

Disclaimer

Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.

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internal risk management policy – even for products which are in general designated for use in Healthcare applications.

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- risk class III applications according to EU directive 93/42/EEC
- any bodily implant application for greater than 30 days
- any critical component in any medical device that supports or sustains human life.

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