

### MedEco ICB

#### Technical DataSheet | Supplied by BIOVOX

MedEco ICB by BIOVOX is a highly resistant, recyclable, biodegradable, bio-based, medical-grade thermoplastic. It is used for wellplates, surgical instruments & intravenous access systems, medical & laboratory devices, and packaging.

It exhibits high surface hardness, rigidity, strength, heat resistance and transparency.

It provides very good shape filling and easy processing at low temperatures, saving energy.

It has low carbon footprint with great price-performance ratio.

It is capable of EO/Gamma/X-Ray/SCC sterilization.

MedEco ICB is suitable for transparent and translucent injection molded components.

| Product Type                  | Unspecified Thermoplastic > Unspecified Thermoplastic, Bio-based   |  |  |  |
|-------------------------------|--|--|--|--|
| Product Status                | COMMERCIAL   |  |  |  |
| Applications/ Recommended for | Packaging Healthcare / Medical > Surgery instruments Healthcare / Medical > Medical goods Injection molding - thermoplastics   |  |  |  |
| Biodegradable                 | Yes  |  |  |  |
| Bio Based                     | Yes  |  |  |  |
| Bio Based Content (%)         | 99   |  |  |  |
| Labels/Agency Rating          | ISO 10993<br>br> ISO 13485<br>br> EN ISO 13432<br>br>  |  |  |  |
| Key Features                  | Biodegradable Energy Saving Hardness, High Heat Resistance, High Processability, Good Recyclable Rigidity, High Sterilization, Ethylene Oxide Sterilization, Radiation Strength, High Transparency, High |  |  |  |

## MedEco ICB Properties

Physical Value & Unit Test Condition Test Method



**Bio Carbon Content** > 99 %

Melt Mass-Flow Rate (MFR 30 g/10 min or MFI = Melt Flow Index or MI = Melt Index)

At 190°C, 2.16 kg

ISO 1133-A

1.24 g/cm<sup>3</sup> **Density** 

Linear Mold Shrinkage 0.45 - 0.8 %

**Thermal** Value & Unit **Test Condition** Test Method **Melting Point** 175 °C ISO 3146 **Deflection Temperature at** 60 °C ISO 75-1 0.46 MPa (66 psi)

Value & Unit **Test Condition** Mechanical Test Method 65 N/mm<sup>2</sup> **Tensile Strength** ISO 527-1/1A  $2.5 \text{ kJ/m}^2$ At 23°C **ISO 180** Impact Strength, Notched 3450 N/mm<sup>2</sup> **Modulus of Elasticity** ISO 527-1/1A ISO 527-1/1A **Elongation at Break** 5.5 %

# MedEco ICB Processing Guidelines

**Test Condition** Test Method Value & Unit Injection molding

40 °C **Hopper Temperature** 



### Feeding Zone Temperature 170 °C

| Nozzle Temperature              | 185 °C     |
|---------------------------------|------------|
| Compression Zone<br>Temperature | 180 °C     |
| Tool Temperature                | 30 - 40 °C |
| Drying Temperature              | 60 °C      |
| Drying Time                     | > 6 hr     |
| Measuring Zone<br>Temperature   | 190 °C     |

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