

ECOZEN® HF502

Copolyester

SK Chemicals

ECOZEN, conceived and developed by SK Chemicals is a bio-based, heat-resistant, and transparent bio-copolyester.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|-------------------------------------|--------|-------------------|---------------|
| ASTM Data | | | |
| Mold Shrinkage, MD | 0.0035 | mm/mm | ASTM D 955 |
| Density, 73 °F | 1330 | kg/m ³ | ASTM D 792 |

| Mechanical Properties | Value | Unit | Test Standard |
|---------------------------------------|-------|-------------------|---------------|
| ISO Data | | | |
| Yield stress | 59 | MPa | ISO 527 |
| Yield strain | 4.8 | % | ISO 527 |
| Stress at Break | 26 | MPa | ISO 527 |
| Strain at Break | 260 | % | ISO 527 |
| Flexural Modulus (23 °C) | 2400 | MPa | ISO 178 |
| Flexural strength | 83 | MPa | ISO 178 |
| Notched Impact Strength (Izod), 23 °C | 7 | kJ/m ² | ISO 180/1A |
| Rockwell Hardness | R 115 | - | ISO 2039-2 |

| | | | |
|--|-------|-----|------------|
| ASTM Data | | | |
| Tensile Strength at Yield | 60 | MPa | ASTM D 638 |
| Tensile Strength at Break | 50 | MPa | ASTM D 638 |
| Elongation at Yield | 5.3 | % | ASTM D 638 |
| Elongation at Break | 250 | % | ASTM D 638 |
| Flexural Modulus | 2403 | MPa | ASTM D 790 |
| Flexural Strength | 87.3 | MPa | ASTM D 790 |
| Rockwell Hardness | R 115 | - | ASTM D 785 |
| Notched Impact Strength (Izod), 1/8 in | 60 | J/m | ASTM D 256 |

| Thermal Properties | Value | Unit | Test Standard |
|---|-------|------|---------------|
| ISO Data | | | |
| Temp. of deflection under load (1.80 MPa) | 77 | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 89 | °C | ISO 75-1/-2 |
| ASTM Data | | | |
| DTUL @ 66 psi | 79 | °C | ASTM D 648 |
| DTUL @ 264 psi | 68 | °C | ASTM D 648 |

| Other Properties | Value | Unit | Test Standard |
|------------------|-------|-------------------|---------------|
| ISO Data | | | |
| Density | 1330 | kg/m ³ | ISO 1183 |

| Optical Properties | Value | Unit | Test Standard |
|---------------------|-------|------|---------------|
| ASTM Data | | | |
| Haze | 1 | % | ASTM D 1003 |
| Light Transmittance | 86 | % | ASTM D 1003 |

Characteristics

Processing

Film Extrusion, Sheet Extrusion, Blow Molding

Special Characteristics

Heat aging stabilized, Transparent

Features

Amorphous, Copolymer

Chemical Resistance

General Chemical Resistance

Certifications

Contains renewable resources

Applications

Packaging

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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- any critical component in any medical device that supports or sustains human life.

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