

Styrofex 4G80

Styrene Butadiene Copolymer (SBC)

TECHNICAL DATASHEET

DESCRIPTION

The product line Styrofex® comprises thermoplastic elastomers from clear styrene butadiene copolymers (S-TPE), which are more polar than comparable SBS or SEBS grades. The grades provide a very high puncture resistance to foils in multilayer applications and increase as additive the toughness of compounds. They are easy to process and work as modifiers and compatibilizers in many polymers, e.g. polyolefins. For all Styrofex® grades food contact statements are available upon request. Styrofex® 4G80 is a styrene butadiene block copolymer (SBC) optimized for the extrusion of soft tubings. 4G80 is also offered for medical applications and is Gamma, X-ray & ETO sterilizable.

FEATURES

- Easy processing
- Sterilisable(ETO ,NO2 ,Irradiation)
- Toughness

APPLICATIONS

- Medical devices
- Flexible medical applications, e.g. tubes

| Property, Test Condition | Standard | Unit | Values |
|--|-------------|------------|--------|
| Rheological Properties | | | |
| Melt Volume Rate, 200 °C/5 kg | ISO 1133 | cm³/10 min | 18 |
| Mechanical Properties | | | |
| Charpy Notched Impact Strength, 23° C | ISO 179/1eA | kJ/m² | NB |
| Charpy Notched Impact Strength, -30 °C | ISO 179/1eA | kJ/m² | NB |
| Tensile Modulus | ISO 527 | MPa | 45 |
| Tensile Stress at Yield, 23 °C | ISO 527 | MPa | NB |
| Tensile Strain at Yield, 23 °C | ISO 527 | % | NB |
| Tensile Stress at Break, 23 °C | ISO 527 | MPa | 6.50 |
| Tensile Strain at Break, 23 °C | ISO 527 | % | > 400 |
| Hardness, Shore D | ISO 868 | - | 21 |
| Hardness, Shore A | ISO 868 | - | 80 |
| Thermal Properties | | | |
| Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h) | ISO 306 | °C | 38 |
| Optical Properties | | | |
| Haze | ASTM D 1003 | % | 30 |

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| Property, Test Condition | Standard | Unit | Values |
|---|-------------|-------------------|-----------|
| Light Transmission at 550 nm | ASTM D 1003 | % | 81 |
| Other Properties | | | |
| Density | ISO 1183 | kg/m ³ | 980 |
| Water Absorption, Saturated at 23 °C | ISO 62 | % | 0.07 |
| Moisture Absorption, Equilibrium 23 °C/50% RH | ISO 62 | % | 0.07 |
| Processing | | | |
| Melt Temperature Range | ISO 294 | °C | 170 - 240 |
| Mold Temperature Range | ISO 294 | °C | 30 - 50 |