

Product datasheet Erkodur-S



1. Manufacturer information

Trade name:	Erkodur-S
Intended use:	Fabrication of hard mid-layers for sports mouthguards
Manufacturer:	Erkodent Erich Kopp GmbH Siemensstraße 3 72285 Pfalzgrafenweiler Germany Tel.: +49 7445 8501-0

2. Intended use

Erkodur-S is thermoformed to fabricate the hard mid-layer for sports mouthguard Playsafe heavy-pro or light-pro.

Application	Thickness recommendation
Playsafe sports mouthguard, hard mid-layer for Playsafe heavy-/light-pro	0.8 mm

3. Composition

CAS-No.:	9003-53-6
Designation:	Styrene-Butadien-Styrene (SBS)

4. Properties

General properties:

Properties	Guideline	Value
Form	-	hard
Colour	-	clear
Odour	-	inodorous
Density	ISO 1183	1.02 g/cm ³
Water absorption, 24 h/23 °C	ISO 62/1	0.07 %
Water solubility	-	insoluble

Mechanical properties:

Properties	Guideline	Value
Tensile strength	ISO 527	-
Flexional strength	ISO 178	48 MPa
Impact strength, 23 °C	ISO 179/1eU	25 kJ/m ²
Notch impact, 23 °C	ISO 179/1eA	2 kJ/m ²
Yield stress	ISO 527	35 MPa
Elongation at break	ISO 527	20 %
E-modulus	ISO 527	1800 MPa

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Hardness shore A/ shore D
Ball indentation hardness

ISO 868
ISO 2039/1

72 Shore D
-

Thermal properties:

Properties	Guideline	Value
Vicat softening point, 50 °C/h 50 N	ISO 306	63 °C
Temperature resistance, 1.80 MPa	ISO 75	59 °C
Glass transition temperature	ISO 11357	-
Shrinkage after thermoforming	-	0.3 – 1 %

Biological properties:

The material has been tested for biocompatibility according to DIN EN ISO 10993-1 and does not affect the patient's biological safety.

5. General information

Storage instructions:

Keep away from sunlight. Keep dry.

Recommended storage temperature: 5 °C – 35 °C

Instructions for cleaning and maintenance:

Best results are achieved with Oxydens cleansing tablets.

Further cleaning agents: Soap, curd soap, liquid soap and dish liquid. Do not use any strongly perfumed soaps.

Not suited are: tooth-paste, mouth-wash and water that is hotter than 50 °C.

Solvent-based cleaning agents cause delamination of multi-layered splints.

Sterilisation:

A sterilization with gas and plasma (<50 °C) is possible. As a result of the thermolability the materials are not autoclavable.

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