

## 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<br>Siemensstraße 3<br>72285 Pfalzgrafenweiler<br>Germany<br>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 (all data are approximate values)

#### General properties:

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

#### Mechanical properties:

| Properties                | Guideline   | Value                |
|---------------------------|-------------|----------------------|
| Tensile strength          | ISO 527     | -                    |
| Flectional strength       | ISO 178     | 48 MPa               |
| Impact strength, 23 °C    | ISO 179/1eU | 25 kJ/m <sup>2</sup> |
| Notch impact, 23 °C       | ISO 179/1eA | 2 kJ/m <sup>2</sup>  |
| Yield stress              | ISO 527     | 35 MPa               |
| Elongation at break       | ISO 527     | 20 %                 |
| E-modulus                 | ISO 527     | 1800 MPa             |
| Hardness shore A/ shore D | ISO 868     | 72 Shore D           |

## Product datasheet Erkodur-S



Ball indentation hardness

ISO 2039/1

-

### 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 – 45 °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.

*To the best of our knowledge, the information in this product data sheet is correct at the time of printing. The information is not a guaranteed assurance of product properties and does not establish any contractual legal understanding. All processing instructions are approximate values and do not release the user from the obligation to determine the suitability for the respective application.*

*Errors and omissions excepted.*