Product datasheet Erkolen

1. Manufacturer information

Trade name:	Erkolen
Intended use:	Fabrication of dental thermoforming splints
Manufacturer:	Erkodent Erich Kopp GmbH Siemensstraße 3 72285 Pfalzgrafenweiler Germany Tel.: +49 7445 8501-0

2. Intended use

Erkolen is thermoformed to fabricate intra-oral appliances such as:

Application	**Thickness recommendation**
Copings	0.5 – 0.8 mm
Spacer for fluoride	1.0 mm
Temporary appliances, only mould	0.8 and 1.0 mm
Bracket transfer/etching masks	0.8 and 1.0 mm

The thickness recommendations are non-binding suggestions based on market observation.

3. Composition

CAS-No.:	9002-88-4
Designation:	Polyethylen (PE)

4. Properties

General properties:

Properties	**Guideline**	**Value**
Form	-	soft, resilient
Colour	-	transparent
Odour	-	inodorous
Density	ISO 1183	0.924 g/cm³
Water absorption, 24 h/23 °C	ISO 62	-
Water solubility	-	insoluble

Mechanical properties:

Properties	**Guideline**	**Value**
Tensile strength	ISO 527	25 MPa
Flectional strength	ISO 178	-
Impact strength, 23 °C	ISO 179/1eU	-
Notch impact, 23 °C	ISO 179/1eA	-
Yield stress	ISO 527	11 MPa

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Elongation at break	ISO 527	250 %
E-modulus	ISO 527	260 MPa
Hardness shore A/ shore D	ISO 868	40 Shore D
Ball indentation hardness	ISO 2039/1	18 MPa

Thermal properties:

Properties	**Guideline**	**Value**
Vicat softening point	ISO 306	94 °C
Temperature resistance	ISO 75	-
Glass transition temperature	ISO 11357	-
Shrinkage after thermoforming	-	-

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.