Product datasheet Erkodur-al

1. Manufacturer information

Trade name:	Erkodur-al
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

Erkodur-al is thermoformed to fabricate intra-oral appliances such as:

Application	Available thicknesses
Aligners/ correction splints/ retainers	0.6/ 0.8/ 1.0 mm

3. Composition

CAS-No.:	-
Designation:	Copolyester

4. Properties (all data are approximate values)

General properties:

Properties	Guideline	Value
Form	-	tough, hard
Colour	-	clear
Odour	-	inodorous
Density	ASTM D 1505	1.19 g/cm³
Water absorption, 24 h/23 °C	ASTM D 570	0.5 %
Water solubility	-	insoluble

Mechanical properties:

Properties	Guideline	Value
Tensile strength	ASTM D 882	41 MPa
Flectional strength	ISO 178	59 MPa
Impact strength, 23 °C	ISO 179	no break
Notch impact, 23 °C	ISO 179	93 kJ/m²
Yield stress	ISO 527-2/1B/50	43 MPa
Elongation at break	ASTM D 882	179 %
E-modulus	ASTM D 882	1462 MPa
Hardness shore A/ shore D	ISO 868	-
Rockwell hardness	D 785	112

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Thermal properties:

Properties	Guideline	Value
Vicat softening point	D 1525	102 °C
Temperature resistance, 1.80 MPa	ISO 75	85 °C
Glass transition temperature	DSC	110 °C
Shrinkage after thermoforming	-	0.5 – 0.75 %

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.