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

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 – 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.