

Product datasheet Erkoplast PLA



1. Manufacturer information

Trade name:	Erkoplast PLA-R/-T/-W
Intended use:	Fabrication of impression trays and base plates
Manufacturer:	Erkodent Erich Kopp GmbH Siemensstraße 3 72285 Pfalzgrafenweiler Germany Tel.: +49 7445 8501-0

2. Intended use

Erkoplast PLA-T/-W is thermoformed to fabricate intra-oral appliances such as individual impression trays.

Erkoplast PLA-R is thermoformed to fabricate intra-oral appliances such as bite plates.

Application	Thickness recommendation
Functional trays	3.0 mm (upper) and 4.0 mm (lower)
individual impression trays	3.0 mm (upper) and 4.0 mm (lower)
Base plates	1.5 mm
Bite plates	1.5 mm

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

3. Composition

CAS-No.:	26100-51-6
Designation:	Polylactic acid (PLA)

4. Properties

General properties:

Properties	Guideline	Value
Form	-	impact resistant, very rigid
Colour	-	transparent, white, rose
Odour	-	inodorous
Density	ISO 1183	1.24 g/cm ³
Water absorption, 24 h/ 23 °C	ISO 62	-
Water solubility	-	insoluble

Mechanical properties:

Properties	Guideline	Value
Tensile strength	ISO 527	45 MPa
Flexional strength	ISO 178	-

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Impact strength, 23 °C	ISO 179/1eU	23 kJ/m ²
Notch impact, 23 °C	ISO 179/1eA	-
Yield stress	ISO 527	-
Elongation at break	ISO 527	5 %
E-modulus	ISO 527	3500 MPa
Hardness shore A/ shore D	ISO 868	-
Ball indentation hardness	ISO 2039/1	-

Thermal properties:

Properties	Guideline	Value
Vicat softening point	ISO 11357	-
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.

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