# Product datasheet Erkoloc-pro



Revision: 3

Modification date: 15.04.21 /created 21.10.20

# 1. Manufacturer information

Trade name: Erkoloc-pro/ blu/ green/ pink

Intended use: Fabrication of dental thermoforming splints

Manufacturer: Erkodent Erich Kopp GmbH

Siemensstraße 3

72285 Pfalzgrafenweiler

Germany

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#### 2. Intended use

Erkoloc-pro is thermoformed to fabricate intra-oral appliances such as:

Application	Thickness recommendation
Occlusal, bruxism and michigan splints	2.0 – 3.0 mm (adding)
	3.0 – 5.0 mm (subtracting)
Bleaching trays	1.0 mm
Fluoride trays	1.0 mm
Stabilization splints	1.0 and 1.3 mm
Silensor-sl anti snoring device	3.0 mm
Aligners/ corrections splints	1.0 and 1.3 mm
Retainers	1.0 – 2.0 mm

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

# 3. Composition

CAS-No.: 25640-14-6 9018-04-6
Designation: Polyethylenterephthalat Thermoplastic (PET-G) Polyurethan (TPU)

# 4. Properties

## General properties:

Properties	Guideline	Value – PETG	Value – TPU
Form	-	very tough, hard	soft
Colour		clear	clear, blu, green, pink
Odour	-	inodorous	inodorous
Density	ISO 1183	1.27 g/cm <sup>3</sup>	-
Water absorption, 24 h/ 23 °C	ISO 62/1	0.2 %	-
Water solubility	-	insoluble	insoluble

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#### Mechanical properties:

Properties	Guideline	Value – PETG	Value – TPU
Tensile strength	ISO 527	53 MPa	38.6 MPa
Flectional strength	ISO 178	69 MPa	-
Impact strength, 23 °C	ISO 179/1eU	no break	-
Notch impact, 23 °C	ISO 179/1eA	10 kJ/m²	-
Yield stress	ISO 527	53 MPa	5,5 MPa
Elongation at break	ISO 527	40 %	590 %
E-modulus	ISO 527	2200 MPa	26.9 MPa
Hardness shore A/ shore D	ISO 868	-	85 Shore A
Rockwell hardness	D 785	115	-

# Thermal properties:

Properties	Guideline	Value – PETG	Value – TPU
Vicat softening point	ISO 306	83 °C	80 °C
Temperature resistance,	ISO 75	68 °C	
1.80 MPa			-
Glass transition temperature	ISO 11357	-	- 46 °C
Shrinkage after thermoforming	-	0.5 %	-

## 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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