



ABN 46 342 108 677

Smileflex® Invisible Retainer Pro™

Product and Safety Data Sheet

1. MANUFACTURING INFORMATION

Product name: Invisible Retainer Pro™
Product intended use: To retain the position of the teeth after orthodontic treatment.
Manufacturer: Smileflex Pty Ltd
ABN 46 342 108 677
smileflex.com.au
Country of manufacture: Australia

2. MATERIAL INTENDED USE

The material is thermoformed to fabricate intra-oral appliances such as:

Application	Thickness recommendation
Retainers	1.0mm

The thickness recommendation is a non-binding suggestion based on market observation.

3. COMPOSITION

CAS No.: 25640-14-6
Designation: Polyethylene terephthalate (PETG)

4. MATERIAL PROPERTIES

General properties:

Properties	Guideline	Value
Form	-	tough, hard
Colour	-	clear
Odour	-	inodorous
Density	ASTM D 1505	1.19g/cm ³
Water absorption	ASTM D 570	0.5%
Water solubility	-	insoluble

Smileflex® Invisible Retainer Pro™ Product and Safety Data Sheet

4. MATERIAL PROPERTIES (cont.)

Mechanical properties:

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

Thermal properties:

Properties	Guideline	Value
Vicat softening point	D 1525	102°C
Temperature resistance, 1.8 MPa	ISO 75	85°C
Glass transition temperature	DSC	110°C

Biological properties:

The material has been tested for biocompatibility according to DIN EN ISO 10993-1 and does not affect the user's biological safety. The material is non-toxic and not made with Latex, does not contain DEHP (or other Phthalates), or Bisphenol A (BPA), and is monomer and gluten free.

5. GENERAL INFORMATION

Storage instructions: Use provided protective case. Keep away from sunlight. Keep dry.

Recommended storage temperature: 5°C–35°C

Instructions for cleaning and maintenance: Best results are achieved with cleansing tablets.

Further cleaning agents: Soap, curd soap, liquid soap and dish liquid. Do not use any strongly perfumed soaps.

Not suitable cleaning agents: Toothpaste, mouthwash and water that is hotter than 50°C.

Sterilisation: A sterilisation with gas and plasma (<50°C) is possible. As a result of the thermolability, the product is not autoclavable.

The information on this data sheet corresponds to the best of our knowledge at the time of publishing. The information is not guaranteed assurance of product properties and does not constitute a contractual legal understanding. Input errors and mistakes reserved. Modification date: 2024-05-06