



**Biocompatible
TPS-SBC based compound
for Medical Devices**

Complete compliance with ISO 10993 standards for semi-rigid applications including infusion drip chambers

Trinseo's RAPLAN[™] MED 52 D compound has been developed for drip chamber applications and can be used in a variety of applications where similar properties are required. RAPLAN[™] MED 52 D has undergone biocompatibility testing based on ISO 10993 standards (Biological Evaluation of Medical Devices). RAPLAN[™] MED 52 D is produced in compliance with cGMP and it also complies with United States and European food contact regulations.

Key Features

- Highly transparent
- Non-halogenated material (no chlorine, bromine, iodine, fluorine)
- Suitable for solvent welding
- Excellent alternative to polyvinyl chloride-based material
- Chemical resistance to cleaning agents used in the medical sector
- Sterilizable
- Recyclable

Advantages and Benefits

Sterilizable

RAPLAN™ MED 52 D can be sterilized by Ethylene Oxide (EtO) and by Steam. It exhibits very good radiation stability when subjected to Gamma, even at high doses.

Chemical Resistance

RAPLAN™ MED 52 D is designed for environments where it may be exposed to a wide variety of chemicals such as water, salt solutions, alcohols and acids. The following table indicates the ability of TPS-SBC to resist the identified chemical agents.

Chemical	Resistance
Acetone	Poor
Dilute Acids	Good
Dilute Bases	Good
Oils/Grease	Poor
Silicones	Good
Ethylene Oxide	Good
Saline Water	Good
Bleaches	Good
Hydrogen Peroxide	Fair
Disinfectants	Good
Soaps/Detergent	Good
Carboxylic Acids	Poor

Table 1: TPS-SBC Resistance

Secondary Operations

RAPLAN™ MED 52 D can be used as a foundation for secondary operations such as solvent bonding (e.g. Cyclohexanone application).



Material Properties

RAPLAN™ MED 52 D	
Appearance	Transparent
Hardness ASTM D2240, ShD (3")	52
Density ASTM D792, g/cc	1.00
MFI (190°C-49,05N) ASTM D1238, g/10'	10
Tensile Strength ASTM D638, MPa	15.0
Elongation at Break ASTM D638, %	300
Tear Strength (type C) ASTM D624, KN/m	88
Flexural Modulus ASTM D790, MPa	820
Regulatory Compliance	
<ul style="list-style-type: none"> • Food contact (EU & FDA) • Compliant with ISO 10993 4, 5, 6, 10 and 11 • USP 661 Physicochemical study (aqueous and non-aqueous) 	

Table 2: RAPLAN™ MED 52 D

Notification of Change

The RAPLAN™ MED 52 D TPS-SBC based compound is provided with a formulation lock, notification of change of two years, and lot traceability. RAPLAN™ MED is manufactured according to cGMP and also tested by Physicochemical study (aqueous and non-aqueous (isopropyl alcohol – IPA)) according to USP 661.

Contact Us

Additional information about Trinseo resins for medical applications is available from your Trinseo representative or by contacting us at trinseo.com