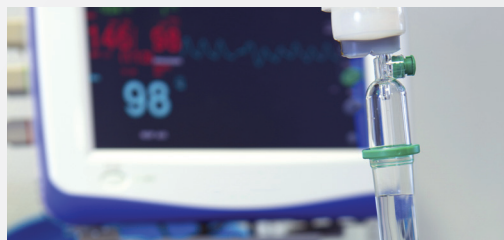


## Biocompatible Polystyrene for Medical Devices ISO 10993 Compliant for Packaging, Devices, Housings

Trinseo's STYRON<sup>TM</sup> 2678 MED Polystyrene Resin is a general purpose polystyrene (GPPS) grade that can be used for applications ranging from petri dishes and pipettes to packaging items to housings and enclosures. Designed for injection moulding applications, the material features high flow and good rigidity. It has undergone biocompatibility testing based on ISO 10993 standards (Biological Evaluation of Medical Devices) and is suitable for use in approved medical applications. It also complies with United States and European food contact regulations.



### Key Features

- Outstanding processability
- Excellent transparency (light transmission approximately 90%)
- Stiffness and rigidity for demanding applications - 3.500 MPa modulus and 43 MPa tensile stress at yield
- Heat resistance

### Advantages and Benefits

#### Sterilizable

- Consistent with general purpose polystyrene, STYRON<sup>TM</sup> 2678 MED Polystyrene Resins can be sterilized by Ethylene Oxide (EtO) and show very good radiation stability when subjected to gamma- or e-beam sterilization, even at high doses. It is not recommended to use GPPS in Autoclave/steam sterilization methods.

#### Chemical Resistance

- Consistent with general purpose polystyrene, the formulation of STYRON<sup>TM</sup> 2678 MED Polystyrene Resins is designed for environments where it may be exposed to a wide variety of surface disinfectants and cleaners such as water, salt solutions, alcohols (such as IPA), acids and lipids.

**Table 1:** Polystyrene Performance

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

#### Secondary Operations

- STYRON<sup>TM</sup> 2678 MED Polystyrene Resin offers low shrinkage and can be used as a foundation for secondary operations such as solvent bonding (e.g., toluol, dichloromethane, butyl acetate), welding (e.g., heat, ultra sonic, laser), and laser marking/printing.

#### Notification of Change

- STYRON<sup>TM</sup> 2678 MED Polystyrene Resin is a medical grade polymer and it is biocompatibility tested according to ISO 10993 standards. The material also offers a formulation lock, extended notification of change and lot traceability.

STYRON<sup>TM</sup> 2678 MED Polystyrene Resins are specifically designed for injection moulding applications where excellent processability and dimensional stability in a well-balanced material are required. In addition to this material, Trinseo offers a full portfolio of CALIBRE<sup>TM</sup> Polycarbonate Resins, EMERGE<sup>TM</sup> Advanced Resins and MAGNUM<sup>TM</sup> ABS Resins for single and multiple use devices and equipment housings in a variety of medical application areas. For more information, contact us at 1-855-TRINSEO (+1-855-874-6736) or visit us online at <http://www.trinseo.com>.



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