

FACT SHEET

INEOS STYROLUTION'S ZYLAR® IN HEALTHCARE

The Zylar® brand is around for a bit more than a quarter of a century. It was first brought to market in the early 1990's and since developed into a broad and strong product line, which is considered by many as a hidden gem in INEOS Styrolution's portfolio of styrenic solutions. The design objective behind the development of Zylar was to improve and increase the impact resistance of the existing NAS®. And indeed, practical toughness is one of the outstanding features of Zylar – in addition to its excellent clarity.

Zylar solutions are available for medical device manufacturers in the “Essential HD package”. This package includes EU and US food contact, USP Class VI, ISO 10993 compliance and a Drug Master File (DMF). With the agreement of a long term supply contract, this package can also be offered with a Notification of Change (NOC) term up to 12 months.

INEOS Styrolution provides the following Zylar grades for the healthcare industry today:

| Property | Zylar® 245 | Zylar® 550 | Zylar® 650 | Zylar® 670 | Zylar® 765 | Zylar® 960 |
|---|--|---|---|---|------------------|----------------------------|
| MVR (cm³/10min) (220/10/ISO 1133) | 48 | 55 | 45 | 55 | 55 | 65 |
| Tensile Modulus (Mpa) (ISO 527-1-2) | 2300 | 2100 | 2100 | 1800 | 1700 | 1840 |
| Charpy (kJ/m²) Unnotched Notched | n.B. 2.0 | n.B. 4.0 | n.B. 4.0 | n.B. 4.0 | n.B. 15 | n.B. 18 |
| IZOD impact Notched (kJ/m²) | 2.0 | 6.0 | 3.0 | 6.0 | 6.0 | 15 |
| Vicat (VST, °C) (ISO 308 (120°C/h, 50N)) | 78 | 73 | 72 | 72 | 64 | 60 |
| UVP | Demolding, scratch resistance, heat resist. | Natural, no tint, heat resist. | Balanced stiffnes/ impact, good CR | Multiaxial toughness, good dart drop | Medium impact | High impact, good CR |

Other features shared by all grades:

- Practical toughness and excellent clarity
- Specific gravity advantage (more parts per kg of resin)
- Lower moisture retention means little or no pre-drying
- FDA and EU food contact statement
- Medical compliance USP CI VI & ISO 10993
- Excellent flow properties
- Excellent thermal stability
- Excellent property retention after gamma, E-beam, or EtO sterilization
- Good resistance to many detergents and cleaning solutions
- Superior resistance to alcohols

Healthcare application examples based on Zylar

Medial housing



3 way stopcock



Syringe body



IV filter



Medical tray





CONTACT

Dr. Ralf Leinemann

Global Manager PR & Marketing Communications

INEOS Styrolution Group GmbH

Mainzer Landstraße 50

60325 Frankfurt

Germany

Phone: +49 69 509550-1366

Email: ralf.leinemann@styrolution.com

Website: www.ineos-styrolution.com