



Chemical Resistant Blend for Medical Housings

Due to increasing concerns about hospital acquired infections (HAI), today's medical housings must endure exposure to powerful disinfectants and cleaners. As a result, the housing material selected must deliver a unique combination of advanced properties, including exceptional chemical resistance, durability to provide enhanced product life under a variety of environmental conditions and pleasing aesthetics. EMERGE™ PC/PET 9100CR Advanced Resin from Trinseo is a blend containing polycarbonate (PC) and polyethylene terephthalate (PET) that meets these critical needs while also offering a UL HB rating at 1.0mm⁽¹⁾ and Biocompatibility testing according to ISO 10993 guidelines⁽²⁾ for medical applications.

Advantages and Benefits

Exceptional Chemical Resistance

The formulation of EMERGE™ PC/PET 9100CR Advanced Resin is specially designed to withstand repeated exposure to a wide variety of aggressive chemicals, including surface disinfectants and other cleaners commonly used in healthcare environments. (see Table 1)

Excellent Toughness Across a Broad Temperature Range

High impact resistance and excellent heat resistance mean that EMERGE™ PC/PET 9100CR offers the durability required for day-to-day use in a variety of environments.

UV Stability

High levels of ultraviolet (UV) light resistance⁽³⁾ help reduce the potential for color shift, loss of surface gloss and property performance over time.

Attractive Appearance

EMERGE™ PC/PET 9100CR is available in custom

color to help produce opaque housings with aesthetically pleasing appearance.

Focused on Meeting Your Needs

As part of Trinseo's EMERGE™ Advanced Resins 9000CR Series, EMERGE™ PC/PET 9100CR is specifically designed for equipment housings and other applications that require enhanced chemical resistance.

Table 1: Resistance to Selected Medical Cleaners/Disinfectants^(4,5)

Cleaner/Disinfectant	Retention of Ultimate Tensile Elongation		
	EMERGE™ PC/PET 9100CR	Competitive PC/ABS	Competitive PC/PET
Wex-Cide 128	●●●	●	●
Virex ⁽⁶⁾ II 256	●●●	●	●●●
CaviCide ⁽⁷⁾	●●●	●	●
CIDEX PLUS ⁽⁸⁾	●●●	●	●●●
50% Bleach	●●●	●	●●●
70% IPA	●●●	●	●●
Sani-Cloth ⁽⁹⁾ Plus	●●●	●	●
Sani-Cloth ⁽⁹⁾ AF	●●●	●	●
Clorox Healthcare ⁽¹⁰⁾ Bleach Germicidal Wipe	●●●	●	●
Clorox Healthcare ⁽¹⁰⁾ Hydrogen Peroxide Cleaner Disinfectant Wipe	●●●	●	●
Virex ⁽⁶⁾ TB	●	●	●

Rating

- Excellent
- Marginal
- Poor

Retention of Ultimate Tensile Elongation

- 80 - 139%
- 65 - 79%
- ≤64% or ≥140%

Committed to quality. In addition to EMERGE™ PC/PET 9100CR Advanced Resin, Trinseo offers a full portfolio of EMERGE™ Advanced Resins and STYRON™ Polystyrene Resins for equipment housings in a variety of application areas ranging from electrical to medical to consumer electronic. For more information, contact us at 1-855-TRINSEO (+1-855-874-6736), or visit us online at <http://www.trinseo.com>.

⁽¹⁾ Resins containing ignition-resistant additives do not readily support ignition. However, they will burn under the right conditions of heat and oxygen supply. The resins should not be exposed to direct flame or extreme heat. Results of small-scale flammability tests on these or any other materials are not to be considered indicative of the behavior of these materials under actual fire conditions. ⁽²⁾ International Organization of Standardization (ISO) 10993 Testing includes Cytotoxicity, Delayed Contact Sensitization, Hemolysis - Extraction and Direct Contact Method (ASTM method), Implantation Test - 7 days, Microscopy of Implants, Intracutaneous Toxicity and Systemic Toxicity. ⁽³⁾ The addition of a UV stabilizer to a resin does not completely eliminate the effects of UV exposure; it is only intended to slow down the rate at which these effects occur. Actual results may vary depending on application and other factors such as resin color, transparency and additives. Therefore, actual end - use testing is recommended. ⁽⁴⁾ Trinseo testing. Complete protocols and results available upon request. ⁽⁵⁾ Tested after 3 days exposure to chemicals under 1.0% strain. ⁽⁶⁾ Trademark of Diversey, Inc. ⁽⁷⁾ Trademark of Metrex Research Corporation. ⁽⁸⁾ Trademark of Johnson & Johnson. ⁽⁹⁾ Trademark of Professional Disposables International, Inc. ⁽¹⁰⁾ Trademark of The Clorox Company.



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