

EMERGE™ PC 4903

Advanced Resin

Overview

EMERGE PC 4903 is a 30% glass fiber reinforced high flow ignition resistant polycarbonate resin. This resin does not contain bromine and chlorine flame retardants. EMERGE PC 4903 is designed with superior processability for use in structural parts of printers, scanners, copiers as well as internal parts for ITE applications.

Applications:

- Structural parts of printers, scanners, and copiers
- Internal parts of ITE machines

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.46 g/cm ³	1.46 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	12 g/10 min	12 g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3 in/in	0.20 to 0.40 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	986000 psi	6800 MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	16800 psi	116 MPa	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	1.22E+6 psi	8400 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	22500 psi	155 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	2.3 ft-lb/in	130 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	212 °F	100 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.04 in (1.0 mm) ¹	V-0	V-0	
0.08 in (2.0 mm)	5VA	5VA	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	230 °F	110 °C	
Drying Time	6.0 to 8.0 hr	6.0 to 8.0 hr	
Rear Temperature	482 to 500 °F	250 to 260 °C	
Middle Temperature	500 to 518 °F	260 to 270 °C	
Front Temperature	500 to 536 °F	260 to 280 °C	
Nozzle Temperature	520 to 572 °F	271 to 300 °C	
Mold Temperature	140 to 212 °F	60 to 100 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



PRODUCT STEWARDSHIP

Trinseo and its affiliated companies have a fundamental concern for all who make, distribute, and use their products and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products so that appropriate steps may be taken to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Trinseo products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

CUSTOMER NOTICE

Customers are responsible for reviewing their manufacturing processes and their applications of Trinseo products from the standpoint of human health and environmental quality to ensure that Trinseo products are not used in ways for which they are not suitable. Trinseo personnel are available to answer questions and to provide reasonable technical support. Trinseo product literature, including safety data sheets, should be consulted prior to the use of Trinseo products. Current safety data sheets are available from Trinseo.

No freedom from infringement of any patent owned by Trinseo or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether products and the information in this document are appropriate for the customer’s use and for ensuring that the customer’s workplace and disposal practices are in compliance with applicable legal requirements. Although the information herein is provided in good faith and was believed to be accurate when prepared, Trinseo assumes no obligation or liability for the information in this document.

DISCLAIMER

TRINSEO MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, IN THIS DOCUMENT; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE (INCLUDING MEDICAL APPLICATIONS) ARE EXPRESSLY EXCLUDED. SINCE THE CONDITIONS AND METHODS OF USE OF THE INFORMATION AND PRODUCTS REFERRED TO ARE BEYOND TRINSEO’S KNOWLEDGE AND CONTROL, TRINSEO DISCLAIMS ANY AND ALL LIABILITY FOR LOSSES OR DAMAGES THAT MAY RESULT FROM RELIANCE ON THE INFORMATION OR USE OF THE PRODUCTS DESCRIBED HEREIN. TRINSEO MAKES NO WARRANTIES, EXPRESS OR IMPLIED, THAT THE USE OF ANY TRINSEO PRODUCT WILL BE FREE FROM ANY INFRINGEMENT CLAIMS.

GENERAL NOTICE

Any photographs of end-use applications in this document represent potential end-use applications but do not necessarily represent current commercial applications, nor do they represent an endorsement by Trinseo of the actual products. Further, these photographs are for illustration purposes only and do not reflect either an endorsement or sponsorship of any other manufacturer for a specific potential end-use product or application, or for Trinseo, or for specific products manufactured by Trinseo. If products are described as “experimental” or “developmental”: (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; (3) there is greater potential for Trinseo to change specifications and/or discontinue production, and (4) although Trinseo may from time to time provide samples of such products, Trinseo is not obligated to supply or otherwise commercialize such products for any use or application whatsoever.

Copyright ©Trinseo (2019) All rights reserved.
 ™ Trademark of Trinseo S.A. or its affiliates
 ® Responsible Care is a service mark of the American Chemistry Council

Follow us at:

