

# EMERGE™ PC/PET 9500CR

Advanced Resin

Trinseo

## Technical Data

### 产品说明

EMERGE™ PC/PET 9500CR Advanced Resin is a polycarbonate blend with excellent chemical and ignition resistance properties. This grade was designed for use in medical equipment housings and other applications that are subject to repeated exposure to a variety of cleaners and disinfectants commonly used in hospitals. This grade has good aesthetics and excellent toughness. It has a UL 94 rating of V0 at 2.0 mm.

Main Characteristics:

- Tested under ISO 10993 (Parts 5 & 10)

Applications:

- Medical device housings or enclosures

### 总体

特性	<ul style="list-style-type: none"> <li>• 耐化学性良好</li> <li>• 韧性良好</li> </ul>	<ul style="list-style-type: none"> <li>• 外观良好</li> <li>• 阻燃性</li> </ul>
用途	<ul style="list-style-type: none"> <li>• 电器外壳</li> </ul>	<ul style="list-style-type: none"> <li>• 外壳</li> <li>• 医疗/护理用品</li> </ul>
形式	<ul style="list-style-type: none"> <li>• 粒子</li> </ul>	
加工方法	<ul style="list-style-type: none"> <li>• 注射成型</li> </ul>	
多点数据	<ul style="list-style-type: none"> <li>• Specific Heat vs. Temperature (ASTM D3417)</li> <li>• Specific Volume vs Temperature (ISO 11403-2)</li> </ul>	<ul style="list-style-type: none"> <li>• Tensile Creep (ASTM D2990)</li> <li>• Tensile Stress vs. Strain (ASTM D638)</li> <li>• Thermal Conductivity vs. Temperature (ASTM E1530)</li> <li>• Viscosity vs. Shear Rate (ASTM D3835)</li> </ul>

### 物理性能

	额定值	单位制	测试方法
比重	1.29	g/cm <sup>3</sup>	ASTM D792
熔流率 (熔体流动速率)			ASTM D1238
260°C/5.0 kg	10	g/10 min	
265°C/5.0 kg	13	g/10 min	
收缩率			ASTM D955
流动	0.60 到 0.95	%	
横向流动	0.50 到 0.70	%	

### 机械性能

	额定值	单位制	测试方法
拉伸模量 <sup>4</sup> (3.20 mm, 注塑)	2330	MPa	ASTM D638
抗张强度 <sup>5</sup>			ASTM D638
屈服, 3.20 mm, 注塑	53.0	MPa	
断裂, 3.20 mm, 注塑	45.0	MPa	
伸长率 <sup>5</sup>			ASTM D638
屈服, 3.20 mm, 注塑	4.1	%	
断裂, 3.20 mm, 注塑	150	%	
弯曲模量 <sup>6</sup> (3.20 mm, 注塑)	2270	MPa	ASTM D790
弯曲强度 <sup>6</sup> (3.20 mm, 注塑)	82.0	MPa	ASTM D790

### 冲击性能

	额定值	单位制	测试方法
悬壁梁缺口冲击强度 (23°C, 3.20 mm, 注塑)	750	J/m	ASTM D256

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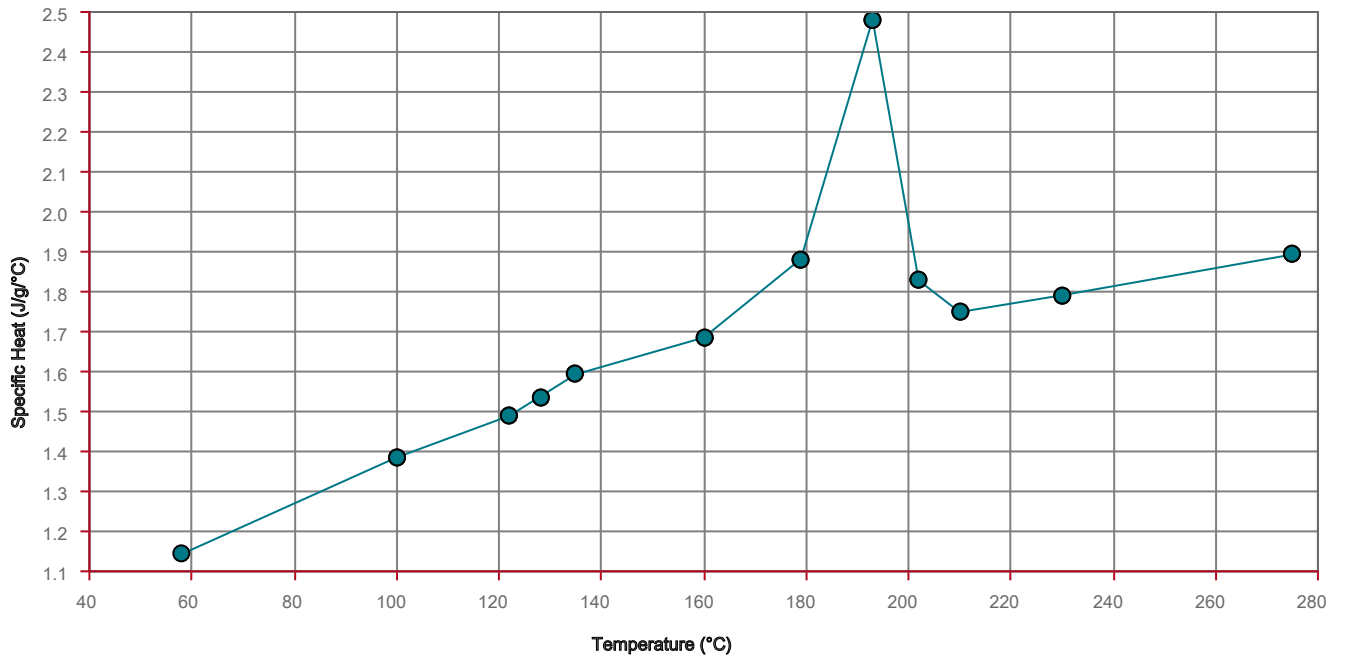
冲击性能	额定值 单位制	测试方法
装有测量仪表的落镖冲击		ASTM D3763
0°C, 3.20 mm, 注塑, Peak Energy	49.0 J	
0°C, 3.20 mm, 注塑, Total Energy	62.0 J	
23°C, 3.20 mm, 注塑, Peak Energy	45.0 J	
23°C, 3.20 mm, 注塑, 总能量	60.0 J	
硬度	额定值 单位制	测试方法
洛氏硬度 (R 级, 3.20 mm, 注塑)	110	ASTM D785
热性能	额定值 单位制	测试方法
载荷下热变形温度		ASTM D648
0.45 MPa, 未退火	109 °C	
1.8 MPa, 未退火	79.0 °C	
维卡软化温度	140 °C	ASTM D1525 <sup>7</sup>
线形热膨胀系数 - 流动 (-40 到 80°C)	7.4E-5 cm/cm/°C	ASTM D696
电气性能	额定值 单位制	测试方法
表面电阻率	5.2E+15 ohms	IEC 60093
体积电阻率	1.0E+18 ohms-cm	IEC 60093
介电强度		IEC 60243-1
1.60 mm, 在油中	31 kV/mm	
3.20 mm, 在油中	18 kV/mm	
相对电容率		IEC 60250
100 Hz	3.28	
1 MHz	3.12	
耗散因数		IEC 60250
100 Hz	3.0E-3	
1 MHz	0.020	
可燃性	额定值 单位制	测试方法
UL 阻燃等级		UL 94
1.5 mm <sup>8</sup>	V-1	
2.0 mm <sup>9</sup>	V-0	
2.5 mm <sup>10</sup>	5VA	
灼热丝易燃指数		IEC 60695-2-12
1.5 mm	825 °C	
2.0 mm	960 °C	
2.5 mm	960 °C	
注射	额定值 单位制	
干燥温度	121 °C	
干燥时间	3.0 到 4.0 hr	
加工 (熔体) 温度	249 到 282 °C	
模具温度	43 到 66 °C	

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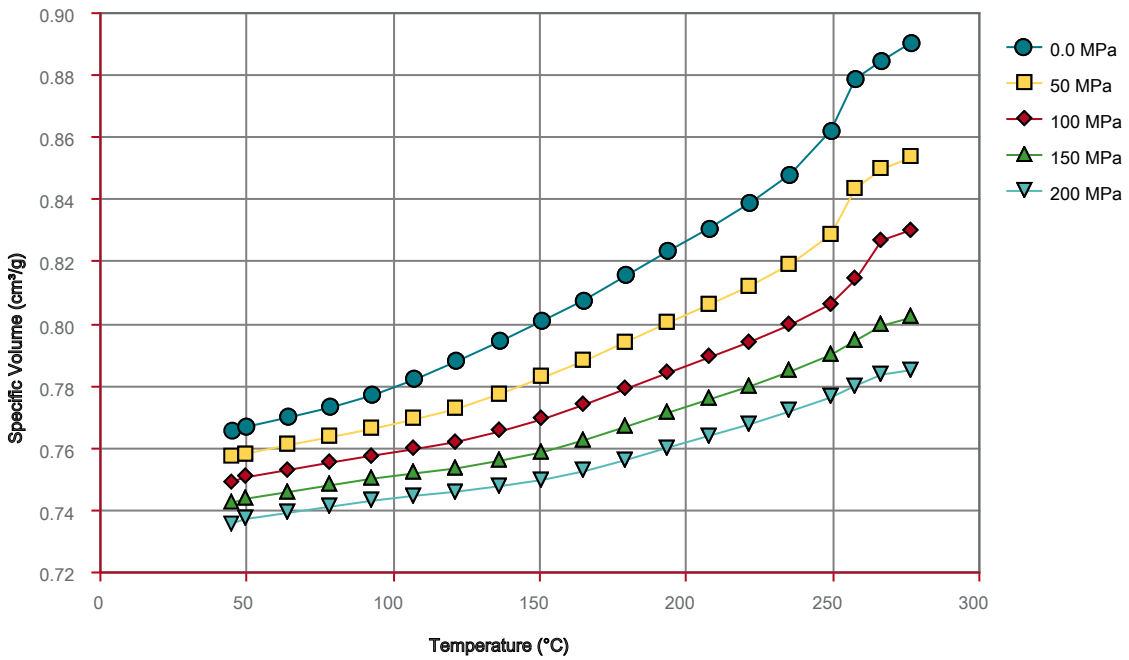
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Specific Heat vs. Temperature (ASTM D3417)



Specific Volume vs. Temperature (ISO 11403-2)

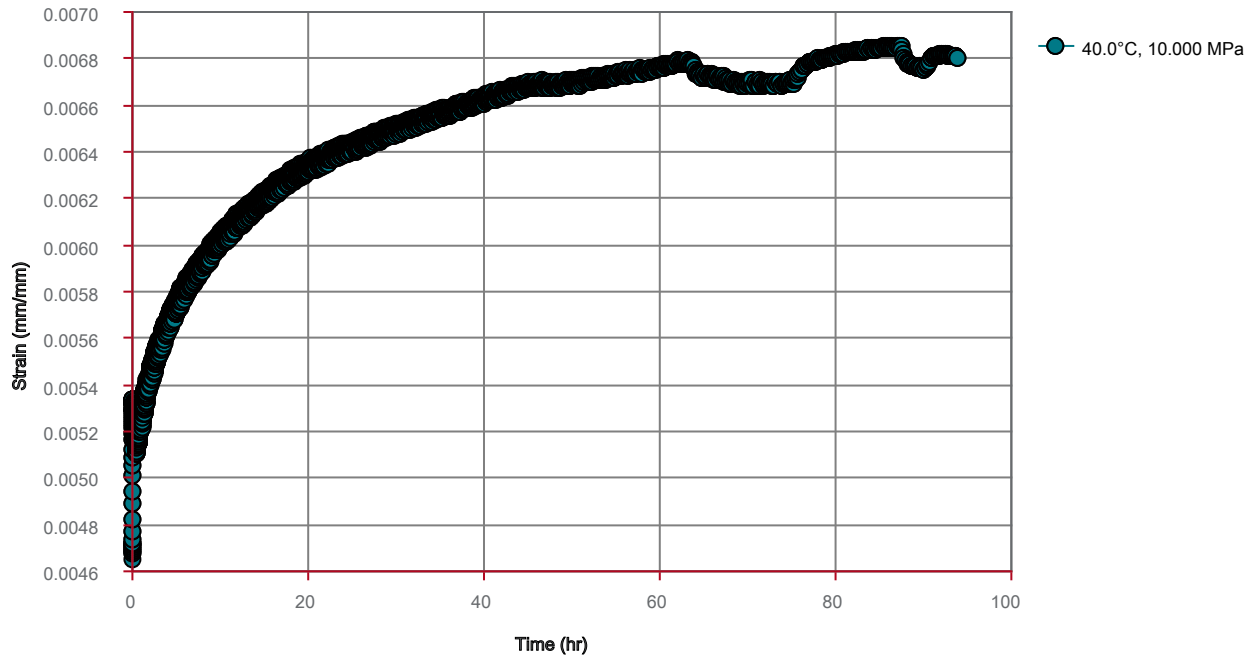


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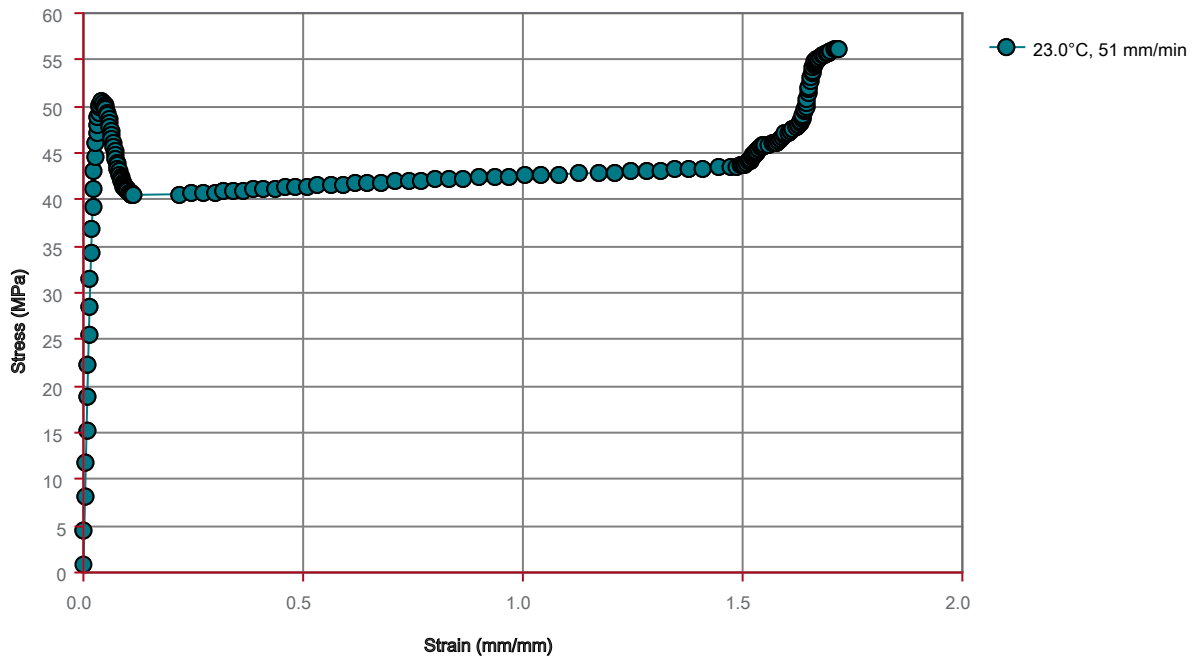
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## Tensile Creep (ASTM D2990)



## Tensile Stress vs. Strain (ASTM D638)

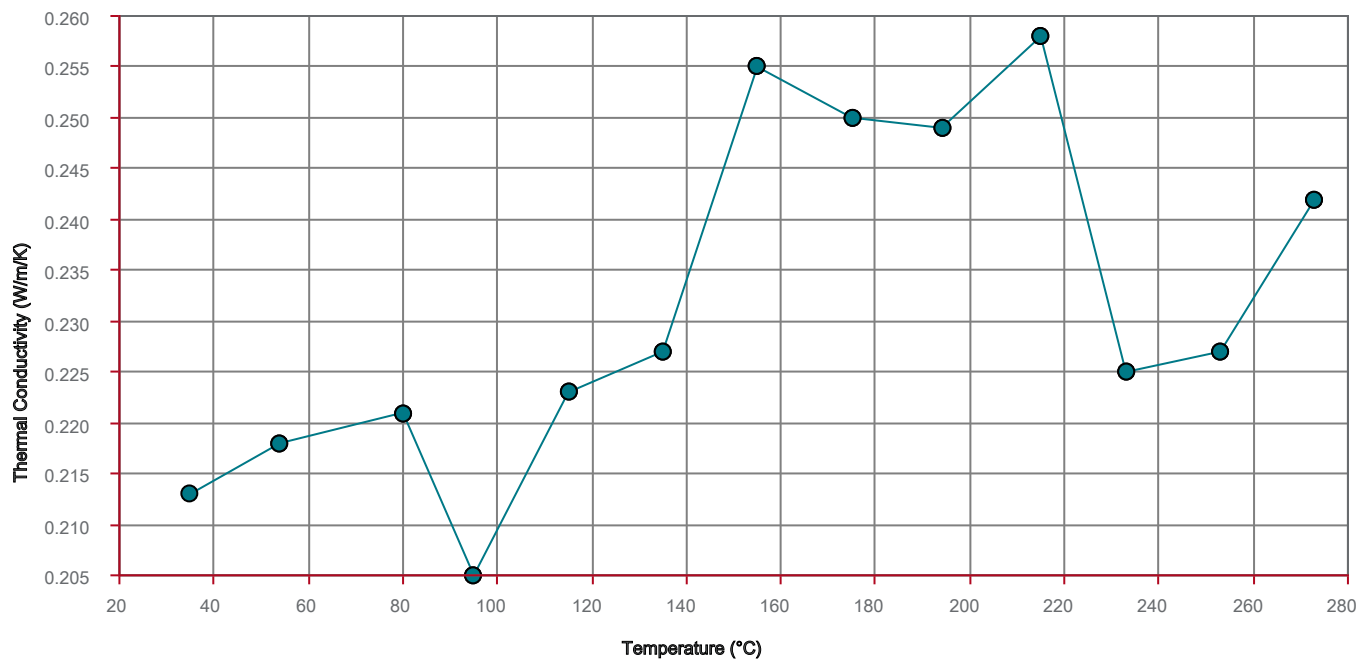


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Thermal Conductivity vs. Temperature (ASTM E1530)

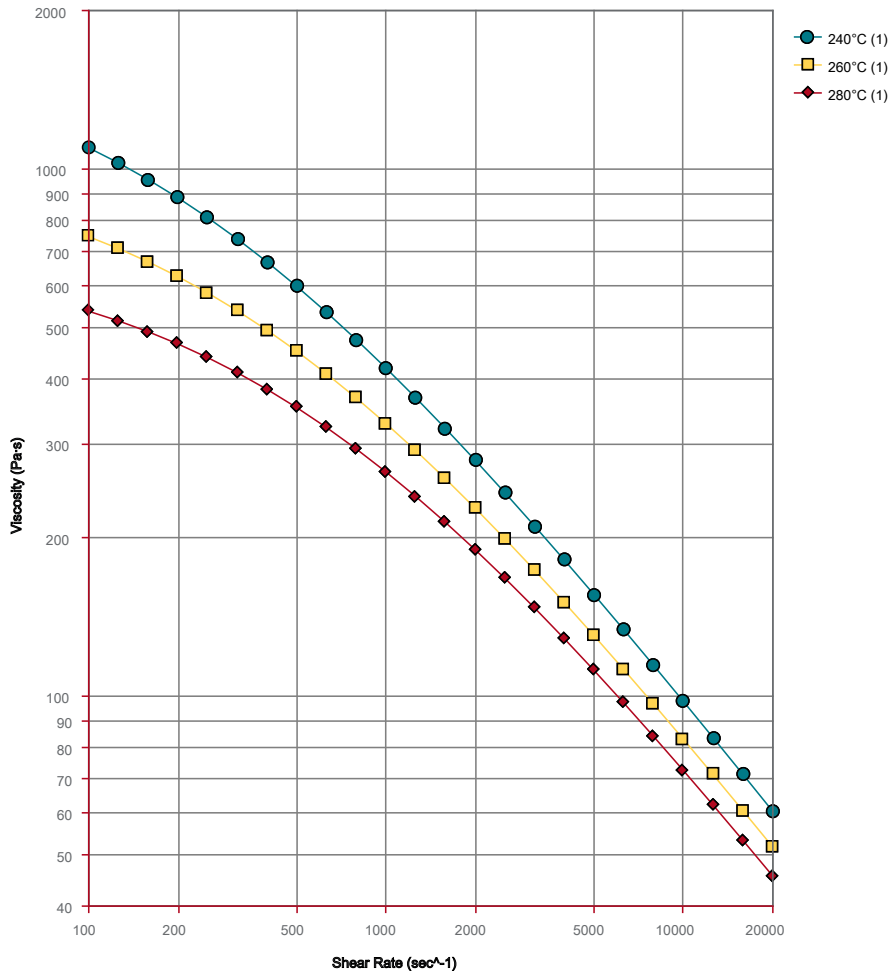


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## 粘度与剪切率 (ASTM D3835)



数据备注

(1) - Rab. Corrected Data