

**EMERGE™ PC/ABS 7700 EU**

(PC+ABS)

Trinseo

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt flow index, MFI	12	g/10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2500	MPa	ISO 527
Yield stress	56	MPa	ISO 527
Yield strain	3.8	%	ISO 527
Stress at break	45	MPa	ISO 527
Strain at break	52	%	ISO 527
Charpy notched impact strength, +23°C	50	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	16	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, +23°C	50	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength	17	kJ/m <sup>2</sup>	ISO 180/1A
Temperature	-30	°C	-
<b>ASTM Data</b>			
Tensile Modulus	2550	MPa	ASTM D 638
Tensile Strength at Yield	57	MPa	ASTM D 638
Tensile Strength at Break	48	MPa	ASTM D 638
Elongation at Yield	3.8	%	ASTM D 638
Elongation at Break	100	%	ASTM D 638
Flexural Modulus	2450	MPa	ASTM D 790
Flexural Strength	86	MPa	ASTM D 790

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	78	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	89	°C	ISO 75-1/-2
Vicat softening temperature, A	104	°C	ISO 306
Vicat softening temperature, B	94	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	2.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	2	mm	-
<b>ASTM Data</b>			
Coefficient of Thermal Expansion, MD	68	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	68	E-6/K	ASTM D 696

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Relative permittivity, 100Hz	2.86	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.8	-	IEC 62631-2-1
Dissipation factor, 100Hz	40	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	70	E-4	IEC 62631-2-1
Volume resistivity	1E16	Ohm*m	IEC 62631-3-1
Surface resistivity	5.2E15	Ohm	IEC 62631-3-2
Electric strength	26	kV/mm	IEC 60243-1

Other properties	Value	Unit	Test Standard
Density	1180	kg/m <sup>3</sup>	ISO 1183

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<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>80 - 90</b>	°C	-
Pre-drying - Time	<b>3 - 4</b>	h	-
Melt temperature	<b>240 - 275</b>	°C	-
Mold temperature	<b>60 - 90</b>	°C	-

**Characteristics****Processing**

Injection Molding

**Applications**

Medical

**Special Characteristics**

Flame retardant, U.V. stabilized or stable to weather

**Regional Availability**

Europe, Near East/Africa

**Certifications**

Medical Grade, Biocompatibility ISO 10993