

**Radel® R-5500 BN1164**

PPSU

Syensqo

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ASTM Data</b>			
Melt Flow Index, MFI	14.5	g/10min	ASTM D 1238
Temperature	365	°C	-
Load	5	kg	-
Mold Shrinkage, MD	0.007	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Tensile Modulus	2340	MPa	ASTM D 638
Tensile Strength	69.6	MPa	ASTM D 638
Elongation at Yield	7.2	%	ASTM D 638
Elongation at Break	90	%	ASTM D 638
Flexural Modulus	2410	MPa	ASTM D 790
Flexural Strength	91	MPa	ASTM D 790
Izod Impact notched, 1/8 in	690	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	0.76	mm	-
Coefficient of Thermal Expansion, MD	56	E-6/K	ASTM D 696
DTUL @ 264 psi	207	°C	ASTM D 648
Glass Transition Temperature	220	°C	ASTM E 1356

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Dielectric Strength, Short Time	15	kV/mm	ASTM D 149
Dielectric Constant, 60 Hz	3.44	-	ASTM D 150
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Optical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Index of Refraction	1.67	-	ASTM D 542

Other properties	Value	Unit	Test Standard
Water Absorption, 24hr	0.37	%	ASTM D 570
Water Absorption, Equilibrium	1.1	%	ASTM D 570
Density	1290	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	149	°C	-
Pre-drying - Time	2.5	h	-
Melt temperature	360 - 391	°C	-
Mold temperature	138 - 163	°C	-

**Characteristics****Processing**

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Blow Molding, Thermoforming

**Delivery form**

Pellets, Brown

**Chemical Resistance**

Acid Resistance, Alkali Resistance, General Chemical Resistance, Environmental Stress Crack Resistance, Hydrolytically Stable, Radiation Resistance

**Certifications**

Medical Grade, Biocompatibility ISO 10993

**Special Characteristics**

Flame retardant, Heat stabilized or stable to heat, Sterilizable, Ethylene Oxide (EtO) Sterilization, Steam sterilization, Gamma irradiation sterilization, Electron beam (e-beam) sterilization

**Features**

Thermal Stability

**Applications**

Electrical and Electronical, General Purpose, Medical

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America