

Syensqo

PPSU

R-5100 NT 15

Product information

Manufacturer	SYENSQO
Color	NC Opaque
Material Shape	Pellets
Process	Injection molding Extrusion molding Blow molding Thermoforming Machining
FR	V-0 5VA
Material Attribute	Flame retardant High heat resistance grade Hydrolysis stabilized grade Drinking water contact grade Medical grade Dimensional stabilityHigh toughnessStress crack resistanceCold-resistanceHigh heat resistanceRadio translucentAcid resistantAlkali-resistingChemical ResistantGood sterilizabilitySteam resistantAnti gamma rayAutoclave sterilizableBiocompatibleDurableE-beam sterilizableEtO sterilizableGeneral purpose gradeHeat sterilizableRadiation SterilizableSteam sterilizable ConnectorPlumbing partsDental applicationsMedical devicesMedical healthcare applicationsSurgical instrumentsMain body of shower faucetThermostatic cartridgeFood service applicationsAerospace applicationsAircraft applications
Features	
Application	

Electrical properties	Condition	Standard	Value	Unit
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Dielectric	Strength	ASTM D149	14	KV/mm
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Volume	Resistivity	ASTM D257	9E+15	Ω.cm
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Flammability	Condition	Standard	Value	Unit
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Flame	Rating NC 0.36mm	UL94	V-0	
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Flame	Rating All Color 0.75mm	UL94	V-0	
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Flame	Rating All Color 1.5mm	UL94	V-0	
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Flame	Rating All Color 3.0mm	UL94	V-0	
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Limiting	Oxygen Index	ASTM D2863	38	%
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Mechanical behavior	Condition	Standard	Value	Unit
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Compressive	Strength	ASTM D695	98.9	MPa
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Compressive	Modulus	ASTM D695	1730	MPa
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Elongation	Yield	ASTM D638	7.2	%
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Elongation	Break	ASTM D638	60	%
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Flexural	Strength Yield	ASTM D790	91.0	MPa
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Flexural	Modulus	ASTM D790	2410	MPa
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Izod	Notch Impact	ASTM D256	690	J/m
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Izod	Un-notch Impact	ASTM D256	NB	
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Poisson	Ratio	ASTM E132	0.42	
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Shearing	Strength	ASTM D732	62.7	MPa
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Tensile	Modulus	ASTM D638	2340	MPa
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Tensile	Strength Yield	ASTM D638	69.6	MPa
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Tensile	Strength Break	ASTM D638	69.6	MPa
Tensile	Impact Strength	ASTM D1822	399	kJ/m ²
Optical performance	Condition	Standard	Value	Unit
Refractive	Index	ASTM D542	1.672	
Physical property	Condition	Standard	Value	Unit
Density		ASTM D792	1.30	g/cm ³
Melt	Index	ASTM D1238	14~20	g/10min
Shrinkage	Flow	ASTM D955	0.70	%
Water	Absorption 24hr	ASTM D570	0.37	%
Thermal	Condition	Standard	Value	Unit
CLE	Flow	ASTM D696	5.6E-5	cm/cm/°C
Glass	Transition Temperature	ASTM E1356	220	°C
HDT	Unannealed 0.45MPa	ASTM D648	214	°C
HDT	Unannealed 1.8MPa	ASTM D648	207	°C
Heat	Conductivity Coefficient	ASTM C177	0.35	W/(m·K)
UL	Condition	Standard	Value	Unit
Arc	Resistance	ASTM D495	5	PLC
Comparative	Tracking Index	IEC 60112	5	PLC
HAI	NC 0.36mm	UL 746A	0	PLC
HAI	ALL 0.75mm	UL 746A	0	PLC
HAI	ALL 1.5mm	UL 746A	0	PLC
HAI	ALL 3.0mm	UL 746A	0	PLC
HVTR		UL 746A	0	PLC
HWI	NC 0.36mm	UL 746A	0	PLC
HWI	ALL 0.75mm	UL 746A	0	PLC
HWI	ALL 1.5mm	UL 746A	0	PLC
HWI	ALL 3.0mm	UL 746A	0	PLC
RTI	Elec NC 0.36mm	UL 746B	160	°C
RTI	Elec ALL 0.75mm	UL 746B	180	°C
RTI	Elec ALL 1.5mm	UL 746B	180	°C
RTI	Elec ALL 3.0mm	UL 746B	180	°C
RTI	Imp NC 0.36mm	UL 746B	160	°C
RTI	Imp ALL 0.75mm	UL 746B	170	°C
RTI	Imp ALL 1.5mm	UL 746B	170	°C
RTI	Imp ALL 3.0mm	UL 746B	170	°C
RTI	Str NC 0.36mm	UL 746B	160	°C
RTI	Str ALL 0.75mm	UL 746B	180	°C
RTI	Str ALL 1.5mm	UL 746B	180	°C
RTI	Str ALL 3.0mm	UL 746B	180	°C
UL	FlameRating NC 0.36mm	UL94	V-0	
UL	FlameRating ALL 0.75mm	UL94	V-0	
UL	FlameRating ALL 1.5mm	UL94	V-0	

