

# Syensqo

## PPSU

### R-5900 NT

#### Product information

Manufacturer	SYENSQO
Color	Clear amber
Material Shape	Pellets
Process	Injection molding
FR	V-0
Material Attribute	Flame retardant Heat stabilized grade High heat resistance grade Hydrolysis stabilized grade
Features	High flowStress crack resistanceUltra high toughnessAcid resistantAlkali-resistingChemical ResistantSteam sterilizable
Application	AppliancesConsumer applicationsFood service applications

Extrusion molding	Condition	Standard	Value	Unit
Dry	Temperature	171	°C	
Dry	Time	4.0	hr	

Flammability	Condition	Standard	Value	Unit
Flame	Rating NC BK 0.25mm	UL94	V-0	
Flame	Rating NC BK 0.40mm	UL94	V-0	
Flame	Rating All Color 0.75mm	UL94	V-0	
Flame	Rating All Color 1.5mm	UL94	V-0	
Flame	Rating All Color 3.0mm	UL94	V-0	

Mechanical behavior	Condition	Standard	Value	Unit
Elongation	Yield 3.2mm	ASTM D638	7.2	%
Elongation	Break 3.2mm	ASTM D638	60~120	%
Flexural	Strength 5.0%Strain 3.2mm	ASTM D790	100	MPa
Flexural	Modulus 3.2mm	ASTM D790	2340	MPa
Izod	Notch Impact 3.2mm	ASTM D256	690	J/m
Tensile	Modulus 3.2mm	ASTM D638	2340	MPa
Tensile	Strength 3.2mm	ASTM D638	70.3	MPa

Physical property	Condition	Standard	Value	Unit
Density		ASTM D792	1.29	g/cm <sup>3</sup>
Melt	Index 365°C 5kg	ASTM D1238	26~40	g/10min
Shrinkage	Flow 3.2mm	ASTM D955	0.70	%
Water	Absorption 24hr	ASTM D570	0.37	%

Thermal	Condition	Standard	Value	Unit
CLE	Flow 3.2mm	ASTM D696	5.6E-5	cm/cm/°C
Glass	Transition Temperature	ASTM E1356	220	°C
HDT	Unannealed 1.8MPa 3.2mm	ASTM D648	207	°C

UL	Condition	Standard	Value	Unit
Arc	Resistance	ASTM D495	5	PLC
Ball	Pressure	IEC 60695-10-2	125	°C
Comparative	Tracking Index	IEC 60112	5	PLC
Dielectric	Strength	ASTM D149	36	KV/mm
GWFI	1.5mm	IEC 60695-2-12	960	°C
GWFI	3.0mm	IEC 60695-2-12	960	°C
GWIT	1.5mm	IEC 60695-2-13	875	°C
GWIT	3.0mm	IEC 60695-2-13	850	°C
HAI	NC BK 0.25mm	UL 746A	0	PLC
HAI	NC BK 0.40mm	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 BK 0.25mm	UL 746A	0	PLC
HWI	NC BK 0.40mm	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 BK 0.25mm	UL 746B	50	°C
RTI	Elec NC BK 0.40mm	UL 746B	140	°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 BK 0.25mm	UL 746B	50	°C
RTI	Imp NC BK 0.40mm	UL 746B	140	°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 BK 0.25mm	UL 746B	50	°C
RTI	Str NC BK 0.40mm	UL 746B	140	°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 BK 0.25mm	UL94	V-0	
UL	FlameRating NC BK 0.40mm	UL94	V-0	
UL	FlameRating ALL 0.75mm	UL94	V-0	
UL	FlameRating ALL 1.5mm	UL94	V-0	
UL	FlameRating ALL 3.0mm	UL94	V-0	
Volume	Resistivity	ASTM D257	1E+19	Ω.cm