

Noryl* Resin V095

Europe-Africa-Middle East: COMMERCIAL

Noryl* V095 resin is a modified PPE-PS blend that exhibits an excellent balance of non chlorinate, non brominate flame retardance, medium heat/high flow and low specific gravity for light weight parts. Noryl V095 is available in custom colors and may be an excellent material candidate for applications requiring light weight parts, good flame performance and excellent processability.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	56	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	12	%	ASTM D 638
Tensile Modulus, 50 mm/min	2580	MPa	ASTM D 638
Tensile Stress, yield, 50 mm/min	58	MPa	ISO 527
Tensile Stress, break, 50 mm/min	42	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.2	%	ISO 527
Tensile Strain, break, 50 mm/min	13	%	ISO 527
Tensile Modulus, 1 mm/min	2610	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	86	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	51	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	101	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	75	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	100	°C	ISO 306
Vicat Softening Temp, Rate B/120	101	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	80	°C	ISO 75/Af
Relative Temp Index, Elec	65	°C	UL 746B
Relative Temp Index, Mech w/impact	65	°C	UL 746B
Relative Temp Index, Mech w/o impact	65	°C	UL 746B
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.15	-	ASTM D 792
Melt Flow Rate, 200°C/3.8 kgf	16.2	g/10 min	ASTM D 1238
Density	1.15	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.18	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 280°C/1.2 kg	12	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 280°C/2.16 kg	26	cm ³ /10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard

Volume Resistivity	1.9E+16	Ohm-cm	ASTM D 257
Surface Resistivity	1.9E+17	Ohm	ASTM D 257
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Volume Resistivity	1.9E+16	Ohm-cm	IEC 60093
Surface Resistivity, ROA	1.9E+17	Ohm	IEC 60093
Relative Permittivity, 1 kHz	2.8	-	IEC 60250
Dissipation Factor, 1 kHz	0.008	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
FLAME CHARACTERISTICS			
	Value	Unit	Standard
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE
Glow Wire Flammability Index 850°C, passes at	3	mm	IEC 60695-2-12
Glow Wire Flammability Index 960°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 2.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	700	°C	IEC 60695-2-13
Oxygen Index (LOI)	31	%	ISO 4589

Source GMD, last updated:04/26/2007

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	70 - 80	°C
Drying Time	2 - 3	hrs
Melt Temperature	250 - 285	°C
Nozzle Temperature	240 - 270	°C
Front - Zone 3 Temperature	250 - 285	°C
Middle - Zone 2 Temperature	230 - 260	°C
Rear - Zone 1 Temperature	200 - 220	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	40 - 65	°C

Source GMD, last updated:04/26/2007

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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