



NORYL™ Resin WCV065
Americas: COMMERCIAL

Flexible, non-halogenated FR, PPE+Polyolefin resin designed for evaluation in Automotive ISO6722 Class A-C applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	370	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	370	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	37	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	45	%	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	410	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	11700	kgf/cm ²	ASTM D 790
Hardness, Shore D, 30S reading	65	-	ASTM D 2240
Tensile Stress, yield, 50 mm/min	39	MPa	ISO 527
Tensile Stress, break, 50 mm/min	37	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	17	%	ISO 527
Tensile Strain, break, 50 mm/min	38	%	ISO 527
Tensile Modulus, 1 mm/min	1450	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	44	MPa	ISO 178
Flexural Modulus, 2 mm/min	1260	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	56	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	336	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	428	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	41	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	9	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	43	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	71	°C	ASTM D 1525



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	115	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.31E-04	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	71	°C	ISO 306
Vicat Softening Temp, Rate B/120	76	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	93	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.04	-	ASTM D 792
Melt Flow Rate, 280°C/5.0 kgf	20.2	g/10 min	ASTM D 1238
Melt Volume Rate, MVR at 280°C/5.0 kg	20	cm ³ /10 min	ISO 1133
ELECTRICAL			
Relative Permittivity, 1 MHz	2.5	-	IEC 60250
Dissipation Factor, 1 MHz	0.002	-	IEC 60250



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Wire Coating Extrusion		
Drying Temperature	60 - 80	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	12	hrs
Maximum Moisture Content	0.02	%
Extruder Length/Diameter Ratio (L/D)	22:1 to 26:1	-
Screw Speed	15 - 40	rpm
Feed Zone Temperature	210 - 260	°C
Middle Zone Temperatures	230 - 285	°C
Head Zone Temperature	250 - 285	°C
Neck Temperature	250 - 285	°C
Cross-head Temperature	250 - 285	°C
Die Temperature	250 - 285	°C
Melt Temperature	250 - 285	°C
Conductor Pre-heat Temperature	80 - 150	°C
Screen Pack	150 - 100	-
Cooling Water Air Gap	100 - 200	mm
Water Bath Temperature	15 - 80	°C

• NOTE: Recommended Drying Parameters are based on usage of Dehumidify Drying / Drying Oven.