



NORYL™ Resin WCV063
Americas: COMMERCIAL

Flexible, non-halogenated FR, mPPE extrusion grade material for evaluation in automotive wire coating applications requiring ISO6722.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	280	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	280	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	90	%	ASTM D 638
Tensile Modulus, 50 mm/min	8500	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	7300	kgf/cm ²	ASTM D 790
Hardness, Shore D, 10S reading	63	-	ASTM D 2240
Tensile Stress, yield	25	MPa	ISO 527
Tensile Stress, break, 50 mm/min	25	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	20	%	ISO 527
Tensile Strain, break, 50 mm/min	50	%	ISO 527
Tensile Modulus, 1 mm/min	690	MPa	ISO 527
Flexural Modulus	790	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	57	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	17	cm-kgf/cm	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	37	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	14	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	82	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	56	°C	ASTM D 648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	66	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.03	-	ASTM D 792
Melt Flow Rate, 280°C/5.0 kgf	33	g/10 min	ASTM D 1238



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
ELECTRICAL			
Relative Permittivity, 1 GHz	2.47	-	ASTM D 150
Dissipation Factor, 1 GHz	0.0032	-	ASTM D 150



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Wire Coating Extrusion		
Drying Temperature	80 - 100	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Extruder Length/Diameter Ratio (L/D)	>24:1	-
Compression Ratio	2;1-3:1	-
Screw Speed	5 - 60	rpm
Feed Zone Temperature	200 - 260	°C
Middle Zone Temperatures	270 - 300	°C
Head Zone Temperature	280 - 300	°C
Neck Temperature	280 - 300	°C
Cross-head Temperature	280 - 300	°C
Die Temperature	280 - 300	°C
Melt Temperature	280 - 300	°C
Conductor Pre-heat Temperature	100 - 150	°C
Screen Pack	60/200/60	-
Cooling Water Air Gap	100 - 1000	mm
Water Bath Temperature	15 - 30	°C

DRYING

- Dehumidification or vacuum oven dryers are recommended

ADDITIONAL SUGGESTIONS

- On-size dies are recommended
- Extrusion equipment should be purged thoroughly before shutting down
- A screw with mixing section can be used if properly designed to prevent excessive heat build-up