

Specification Control Drawing

WIRE, ELECTRICAL, RADIATION-CROSSLINKED, MODIFIED FLUOROPOLYMER INSULATED, TIN COPPER CONDUCTOR, 150°C, 1000 VOLT, LIGHTWEIGHT.

The complete requirements for procuring the wire described herein shall consist of this document.



TABLE I. CONSTRUCTIONAL DETAILS									
Part	Wire	Conductor				FINISHED WIRE			
Description	Size	Stranding	Diameter		Maximum	Diameter			Maximum
	(AWG)	No./ AWG	(mm)		Resistance	(mm.)		Weight	
					@20°C				(kg/km)
			Min.	Max.	(Ω/km)	Min.	Nom.	Max.	
44A0211-30-*	30	7/38	0.29	0.31	347	0.76	0.81	0.86	1.34
44A0211-28-*	28	7/36	0.36	0.38	220	0.84	0.89	0.94	1.64
TABLE IL PERFORMANCE DETAILS									

TABLE II. PERFORMANCE DETAILS							
	Mandrel Diameter	Weight					
	(mm ± 3%)	(kg ± 3%)					
	Immersion	Immersion					
Life cycle and	Cold	Wrap	Life cycle and	Cold			
Accelerated ageing	Bend		Accelerated ageing	Bend			
9.5	12.7	4.8	0.11	0.45			
9.5	19.1	4.8	0.11	0.45			

COLOUR CODE:

The '*' in the part number shall be replaced by a standard colour code designator in accordance with Mil Std 681. White preferred. e.g. 44A0211-30-9 White insulation

PERFORMANCE REQUIREMENTS: To be tested in accordance with the issue in effect of QP-D-004 and meet the requirements of below:

Accelerated Ageing: $300 \pm 3^{\circ}$ C for 6 hours Shrinkage: $300\pm2^{\circ}$ C 3.17 mm Max. in 300 mm Blocking: $150 \pm 2^{\circ}$ C for 24 hours Thermal Shock: $150\pm2^{\circ}$ C, 1.52 mm Max. Voltage Withstand Test (Post Environmental):	Insulation Flaws: Primary Insulation Spark Test: 2.0 kV (rms) Impulse Dielectric Test: 6.0 kV (peak) 100% test Finished Wire Impulse Dielectric Test: 8.0 kV (peak) 100% test		
3.0 kV (rms) for 5 minutes	Life Cycle: $200 \pm 2^{\circ}$ C for 168 hours		
Flammability: 30 seconds Max.	Low Temperature - Cold Bend:		
76 mm Max. no flaming tissue.	-65 ±2°C for 4 hours		
Immersion: Diameter increase 5% Max.	Voltage Withstand Test (Post Environmental):		
no cracking, no dielectric breakdown	(After Accelerated Ageing, Immersion,		
Elongation and Tensile Strength:	Life Cycle and Low Temperature-Cold Bend)		
Primary Insulation	1 kV (rms) for 1 minute		
Elongation: 150% Min.	Smoke Test: 200 ±2°C, No visible smoke		
Tensile Strength: 17.2 MPa Min.	Solderability (95% Min. coverage): per MIL-STD-202,		
Insulation Resistance: 1500 MΩ/ km Min.	Method 208, except without steam-ageing, type RMA flux		
Surface Resistance: 1.27 MΩ/ km Min.	Wicking: 57.2 mm Max.		
Both Readings	Humidity Resistance: Insulation Resistance		
	1500 MΩ/ km Min.		
OVAL: Electronic sign off - no signatures	s will appear.		

APPROVAL:

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