

## WIRE, ELECTRICAL, RADIATION-CROSSLINKED, MODIFIED FLUOROPOLYMER INSULATED, SILVER PLATED HIGH STRENGTH COPPER CONDUCTOR, 150°C, 600 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	Outside			Maximum			
	(AWG)	No./AWG	(mm)		Resistance	Diameter		Weight				
					@20°C	(mm)		(kg/km)				
			Min.	Max.	(Ω/km)	Min.	Nom.	Max.				
44A0114-30-*	30	7/38	0.28	0.31	385	0.64	0.69	0.74	1.06			
44A0114-28-*	28	7/36	0.36	0.38	244	0.71	0.76	0.81	1.43			

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	9.5	4.8	0.11	0.23					
9.5	9.5	4.8	0.11	0.23					

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. 44A0114-30-9 White insulation

PERFORMANCE REQUIREMENTS: To be tested in accordance with the issue in effect of QP-D-0004 and meet the requirements of below:

Accelerated Ageing:  $300 \pm 2^{\circ}$ C for 6 hours Shrinkage:  $300 \pm 2^{\circ}$ C 3.17 mm Max. in 300 mm Blocking:  $150 \pm 2^{\circ}$ C for 24 hours Thermal Shock:  $150 \pm 2^{\circ}$ C, 1.52 mm Max. Flammability: 30 seconds Max. 76 mm Max. no flaming tissue. Immersion: Diameter increase 5% Max. no cracking, no dielectric breakdown Elongation and Tensile Strength: Primary Insulation Elongation: 150% Min. Tensile Strength: 17.2 MPa Min. Insulation Resistance: 1500 MΩ/ km Min. Surface Resistance: 1.27 MΩ/ km Min. Both Readings Insulation Flaws:

Primary Insulation Spark Test: 1.5 kV (rms) Impulse Dielectric Test: 6.0 kV (peak) 100% test Finished Wire Impulse Dielectric Test: 8.0 kV (peak) 100% test Life Cycle: 200 ±2°C for 168 hours Low Temperature - Cold Bend: -65 ±2°C for 4 hours Voltage Withstand Test (Post Environmental): (After Accelerated Ageing, Immersion, Life Cycle and Low Temperature-Cold Bend) 1 kV (rms) for 1 minute Smoke Test: 200±2°C, No visible smoke Solderability (95% Min. coverage): per MIL-STD-202, Method 208, except without steam-ageing, type RMA flux Wicking: 57.2 mm Max. Humidity Resistance: Insulation Resistance 1500 MΩ/ km Min.

APPROVAL: Electronic sign off - no signatures will appear.

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