## Specification Control Drawing

Issue 8 7th August 2012 Page 1 of 2

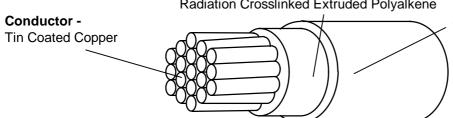
Page 2 for internal use only

## WIRE, ELECTRICAL, RADIATION-CROSSLINKED, MODIFIED FLUOROPOLYMER INSULATED, TIN COPPER CONDUCTOR, 150°C, 600 VOLT, LIGHTWEIGHT.

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

## **Primary Insulation -**

Radiation Crosslinked Extruded Polyalkene



Jacket -Radiation Crosslinked Extruded Polyvinylidene Fluoride

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.	$(\Omega/km)$	Min.	Nom.	Max.				
44A0111-30-*	30	7/38	0.29	0.31	356	0.64	0.69	0.74	1.06			
44A0111-28-*	28	7/36	0.36	0.38	225	0.71	0.76	0.81	1.43			

TABLE II. PERFORMANCE DETAILS									
	Mandrel Diameter	Weight							
	$(mm \pm 3\%)$	(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. 44A0111-30-9 White insulation

**PERFORMANCE** To be tested in accordance with the issue in effect of QP-D-004 and

REQUIREMENTS: meet the requirements of below:

> Accelerated Ageing: 300 ±2°C for 6 hours Shrinkage: 300 ±2°C 3.17 mm Max. in 300 mm

Blocking: 150 ±2°C for 24 hours

Thermal Shock: 150 ±2°C, 1.52 mm Max. Voltage Withstand Test (Post Environmental):

2.5 kV (rms) for 5 minutes

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 ±3°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 M $\Omega$ / km Min.

APPROVAL: Electronic sign off - no signatures will appear.

Tyco Electronics UK Ltd Faraday Road Dorcan SWINDON SN3 5HH Tel: +44 (0)1793 528171 Fax: +44 (0)1793 572516

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