WIRE, ELECTRIC, MODIFIED POLYESTER INSULATED, TIN COATED COPPER, MEDIUM WALL, 1000 VOLT

The complete requirements for procuring the cable described herein shall consist of this document and the issue in effect of Raychem Specification WCD 281

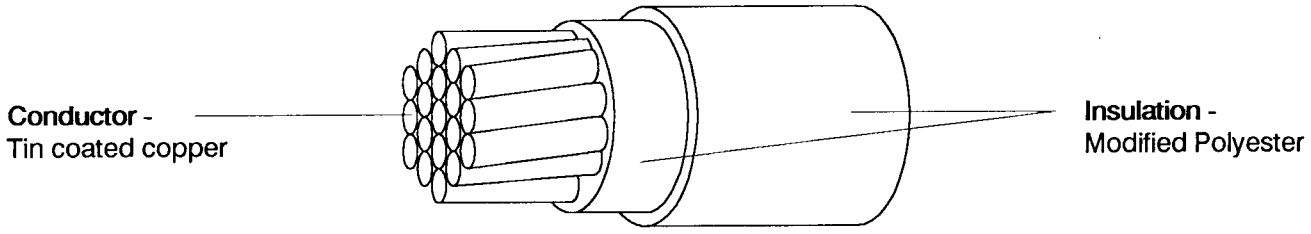

TABLE I

PART NUMBER	NOMINAL CROSS SECTION AREA (mm^2)	CONDUCTOR STRANDING (No/Nom Dia) (mm)	MAXIMUM DIAMETER STRANDED CONDUCTOR (mm)	MAXIMUM CONDUCTOR RESISTANCE AT 20°C (ohms/km)	MINIMUM INSULATION THICKNESS (mm)	DIAMETER (mm)		MAXIMUM WEIGHT (kg/km)
						NOM	MAX	
99M0211-26-*	0.15	19/0.10	0.53	141.50	0.25	1.12	1.17	2.62
99M0211-24-*	0.22	19/0.12	0.62	95.60	0.25	1.21	1.27	3.37
99M0211-22-*	0.34	19/0.15	0.80	60.00	0.25	1.36	1.43	4.86
99M0211-20-*	0.60	19/0.20	1.04	33.20	0.25	1.63	1.71	7.65
99M0211-18-*	0.93	19/0.25	1.29	21.10	0.25	1.88	1.97	11.22
99M0211-16-*	1.34	19/0.30	1.53	14.50	0.25	2.11	2.22	15.36
99M0211-14-*	1.82	37/0.25	1.82	10.90	0.30	2.49	2.62	21.50
99M0211-12-*	3.00	37/0.30	2.18	7.60	0.30	2.82	2.96	32.50

COLOUR CODE: The '*' in the part number shall be replaced by a standard colour code designator in accordance with Mil Std 681.

ie: 99M0211-20-9 - Size 20 conductor, white insulation.

PERFORMANCE AND TEST REQUIREMENTS TO WCD 281
AND DEFENCE STANDARD 61-12 Part 18 Issue 3 AS APPLICABLE

WCD 281 CLAUSE NO.	FREQUENCY	BS G230 TEST NO.	DEFINITION	REQUIREMENTS
- CONDUCTOR, INSULATION AND ELECTRICAL TESTS				
4.1.1	100%	4	Appearance	Smooth, Clean and Bright
4.1.2	IL		Mass	See Constructional Details
4.1.3	IL		Insulation Thickness	See Constructional Details
			Insulation Concentricity	70% minimum
4.1.4	IL		Finished Dimensions	See Constructional details
4.1.5	IL	7	Conductor Tensile Strength and Elongation	BS G231 Table 3
4.1.6	PQ	14(a)	Solderability of Conductor	1.0 seconds maximum wetting time
4.1.7	PQ	9	Strand Plating	No black spots to be visible
4.1.8.1	100%	16(b) or (c)	High Voltage	5kV rms or 8kV peak - no dielectric failure
4.1.8.2	IL	16(a)	Voltage Withstand	2.5kV rms 5 minutes. No dielectric breakdown
4.1.9	PQ	17	Insulation Resistance	500 MOhms.km minute at 20°C ± 3°C after 1 hour immersion
4.1.9.1	PQ		Insulation Resistance	0.1 MOhms.km at 120°C Def Stan 61-12 Part 18/3 9.1.4.1
4.1.10	IL	12	Conductor Resistance	See Table I, overleaf
- THERMAL ENDURANCE TESTS				
4.2.1	QA	App C	Thermal Endurance	120°C, 40,000 hours minimum by extrapolation
4.2.2	IL	22	Insulation Shrinkage	3mm maximum in 300mm at 120°C ± 3°C for 1 hour
4.2.3	PQ	25	Cold Bend -50°C	No cracks in insulation. No dielectric failure when tested to 4.1.8.2. Tension see Table II. Mandrel 20 x maximum specified diameter of the wire
4.2.3.1	PQ	24	Room Temperature Bend	Weights see Table II. Mandrel 8 x maximum specified diameter of the wire
4.2.4.1	PQ	19	Accelerated Ageing 170°C for 168 hours	No cracks in insulation, no dielectric failure when tested to 4.1.8.2 above. Mandrel weights see Table II
- PHYSICAL TESTS				
4.3.4	IL		Insulation Elongation	150% minimum
	IL		Insulation Tensile Strength	25N/mm² minimum
- HAZARD TEST				
4.4.1	PQ	28(a)	Flammability	15 seconds maximum afterburn/ 75mm maximum burn length, no drips
		28(b)		15 seconds maximum afterburn/ 90mm maximum burn length, no drips
- TEST FREQUENCIES				

The test frequencies as stated in the tables above are defined in WCD 281

TABLE II

WIRE SIZE	ACCELERATED AGEING AND ROOM TEMPERATURE BEND	ACCELERATED AGEING	COLD BEND TENSION (N)
	TENSION (N)	MANDREL DIAMETER (mm)	
26	1.6	13.0	10.0
24	2.5	13.0	20.0
22	4.0	20.0	20.0
20	7.0	20.0	20.0
18	10.0	25.0	30.0
16	10.0	25.0	30.0
14	10.0	30.0	30.0
12	10.0	30.0	30.0

DESIGN	PROD. MAN.
5/12/91	
TECH.	Q.C.
5 Dec 91	5/12/91
MAN. ENG.	
5th Dec '91	