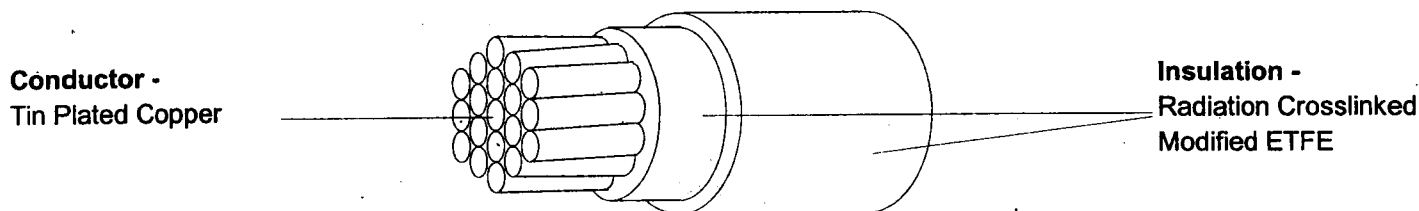


WIRE, ELECTRIC, RADIATION CROSSLINKED, EXTRUDED, MODIFIED FLUOROPOLYMER INSULATED,
TIN COATED COPPER, CONTROLLED WEIGHT, AIRFRAME, 600 VOLT, 150°C

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



Part Number	Conductor Stranding No/Dia (mm)	Conductor Diameter (mm)		FINISHED WIRE					
		Min	Max	Maximum Resistance @20°C (ohms/km)	Total Minimum Wall Thickness (mm)	Diameter (mm)		Weight (kg/km)	
55T9081-22-*	19/0.15	0.70	0.76	60.0	0.20	1.22	1.37	4.17	4.29
55T9081-20-*	19/0.20	0.94	1.00	33.2	0.20	1.42	1.58	6.67	6.90
55T9081-18-*	19/0.25	1.18	1.26	21.1	0.20	1.73	1.88	10.23	10.54
55T9081-16-*	19/0.30	1.39	1.51	14.5	0.20	1.92	2.13	14.56	15.00
55T9081-14-*	37/0.25	1.68	1.78	10.9	0.25	2.23	2.44	19.40	19.98
55T9081-12-*	37/0.32	2.12	2.24	6.8	0.25	2.74	2.95	28.86	29.73
55T9081-10-*	37/0.40	2.69	2.90	4.2	0.25	3.30	3.61	45.69	47.06

PART NUMBER:

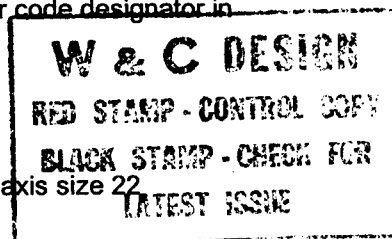
The "*" in the part number shall be replaced by a standard colour code designator in accordance with Mil Std 681.

eg: 55T9081-20-9 size 20, white insulation

MARKING REQUIREMENTS:

Every 300 - 500mm, along axis sizes 20 -10, perpendicular to axis size 22

Add suffix to part number as required
(C) Part Number, Size and Year code
(P) Part Number and Size



55T9081-Size-Y
55T9081-Size

The size shall be replaced by the conductor size eg:- 22
The Y shall be replaced by the year code in accordance with the table below

Code:	99	00	01	02	03	04	05
Year:	1999	2000	2001	2002	2003	2004	2005

DESIGN	PROD. MAN	TECHNICAL	QA	MANUFACTURE	SAAB
<i>[Signature]</i> 12/2/99	<i>[Signature]</i> 4/3/99	<i>[Signature]</i> 12/2/99	<i>[Signature]</i> 12/2/99	<i>[Signature]</i> 12/2/99	Components and Standards <i>[Signature]</i> 12/2/99

PERFORMANCE REQUIREMENTS TO THE ISSUE IN EFFECT OF THE SPECIFICATIONS DETAILED BELOW

DEF STAN 61-12 (Part 33) Clause	TEST FREQUENCY	DEFINITION	REQUIREMENTS
12.1	PR	Visual inspection of conductor strands	Clean, free from surface irregularities
12.2	PR	Conductor composition (stranding)	See constructional details overleaf
12.3	PR	Mass	See constructional details overleaf
12.4	PQ	Strand plating continuity	No adherent black spots
12.5	PQ	Conductor tensile strength	Tensile strength 220 to 300 N/mm ²
12.5	V	Conductor elongation - prior to insulating	Eb. for sizes 22 to 20 = 9.0% minimum
	V		Eb. for sizes 18 to 10 = 14.0% minimum
12.5	PQ	Conductor elongation - after insulating	Eb. for sizes 22 to 20 = 7.4% minimum
	PQ		Eb. for sizes 18 to 10 = 11.4% minimum
13.1	PR	Conductor resistance after insulation	See constructional details overleaf
13.2	PR	Solderability	Maximum wetting time 2.0 seconds
13.3	PR	Appearance & Identification	Smooth - marking to be durable and discernible with normal vision
13.4	PR	Mass	See constructional details overleaf
13.5	PR	Wire outer diameter	See constructional details overleaf
13.6	PQ	Conductor strand adhesion	No bonding of strands
13.7	PR	Insulation thickness and concentricity	See constructional details overleaf, 70% minimum concentricity
13.8	PR	Colour	In accordance with IEC 304
13.9	PQ	Colour stability	Colour to be recognizable after 24 hours at 150°C
13.10	QA	Colour fastness to light	Printing to remain legible and colour to be recognizable
13.11	PQ	Insulation resistance (at 20°C)	500 MΩ.km minimum
	PQ	Insulation resistance (at 95°C)	1 MΩ.km minimum
13.12	PQ	High voltage (immersion)	2.5 kV rms/ 5 mins, no breakdown
13.14	100%	High voltage (dry impulse)	8.0 kV rms, any flaws to be removed
13.15	QA	Surface resistance	12,500 MΩ/mm minimum
13.16	QA	Overload resistance (T ₁ = 250°C)	No smoke, odour or colour change
		Overload resistance (T ₂ = 380°C)	No combustion, splitting or visible conductor
13.17	QA	Resistance to wet arc tracking	No more than 5 wires of 25 tested to become open circuit, 40 mm maximum char length
13.18	PQ	Room temperature bend	No breakdown when tested in accordance with 13.12
13.19	PQ	Cold bend (6 hours at -75°C)	No breakdown when tested in accordance with 13.12
13.20	PQ	Adherence of insulation to conductor	In accordance with Table B
13.21	PQ	Dynamic cut through (at 135°C)	16.7 N minimum sizes 22 to 16 inclusive 26.8 N minimum sizes 14 to 10 inclusive
13.22	PQ	Notch propagation resistance	No breakdown when tested in accordance with 13.12
13.23	PQ	Scrape abrasion (at 135°C)	100 cycles minimum, load in accordance with table D
13.24	QA	Wire to wire abrasion (size 20)	1.0 kg, 6.0 x 10 ⁴ cycles
13.25	QA	Pliability (size 22)	In accordance with Table B
13.26	QA	Identification durability	100 cycles minimum at 2N load
13.27	QA	Flexing endurance (size 20)	0.75 kg, 750 cycles
			No breakdown when tested in accordance with 13.12
13.28	PQ	Accelerated ageing (168 hours at 200°C)	No breakdown when tested in accordance with 13.12
BS 2G 230 Test 19	IL	Crosslink proof test (7 hours at 300°C)	No breakdown when tested in accordance with 13.12
13.29	PQ	Delamination and shrinkage	3 cycles, 4 hours at 150°C, 1 hour at ambient 1 mm maximum shrinkage each end
13.30	QA	Delamination and insulation blocking	No delamination or blocking after 100 hours at 150°C
13.32	QA	Climatic sequence	Category 65/150/10, 44.9 millibars (70,000 feet) No breakdown when tested in accordance with 13.12
13.33	QA	Damp heat - steady state	10 days at 90°C and 90 to 95% relative humidity
13.34	QA	Resistance to solder heat	No splitting, 1 mm maximum shrinkage
13.35	QA	Thermal endurance	50,000 hours minimum at 150°C
13.36	QA	Resistance to fluids	No crazing or delamination, 5% maximum swell
			No colour change or removal of marks
13.37	QA	Mould growth	Permissible growth = Scale 0
13.38	QA	Flammability	15 seconds and 90 mm maximum size 22 15 seconds and 75 mm maximum sizes 20 - 12
13.39	QA	Flame propagation	15 seconds and 90 mm maximum size 22

ADDITIONAL REQUIREMENTS

Insulation elongation:
Insulation tensile strength:

75% minimum total insulation, 125% minimum primary insulation
35 N/mm² minimum

Mandrel Sizes and Loads for Crosslink Proof Test		
Wire Size	Mandrel Dia. (mm)	Total Load (N)
22	15	4.5
20	15	6.5
18	25	9.0
16	25	9.0
14	25	13.0
12	25	13.0
10	50	13.0