

SPECIFICATION CONTROL DRAWING

55PC0716

TITLE

WIRE, RADIATION-CROSSLINKED, MODIFIED, ETFE-INSULATED,
NICKEL-COATED HIGH STRENGTH COPPER ALLOY, HEAVY DUTY, 1000 VOLT

Date

4-16-93

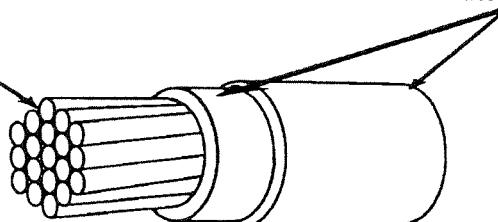
Revision

B

This specification sheet forms a part of the latest issue of Raychem Specification 55PC.

CONDUCTOR - NICKEL-COATED HIGH STRENGTH
COPPER ALLOY

INSULATION - RADIATION-CROSSLINKED,
MODIFIED ETFE



CONSTRUCTION DETAILS

PART NUMBER	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	CONDUCTOR DIAMETER (in.)			FINISHED WIRE					
			LOWER SPEC LIMIT	TARGET VALUE	UPPER SPEC LIMIT	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (in.)			WEIGHT (lbs/1000 ft.)	
							LOWER SPEC LIMIT	TARGET VALUE	UPPER SPEC LIMIT	TARGET VALUE	UPPER SPEC LIMIT
55PC0716-26-*	26	19 x 38	.0175	.0183	.0191	49.4	.0482	.0505	.0528	2.18	2.28
55PC0716-24-*	24	19 x 36	.0225	.0233	.0241	30.1	.0532	.0555	.0578	2.87	3.08
55PC0716-22-*	22	19 x 34	.0285	.0293	.0301	18.6	.0592	.0615	.0638	3.89	4.13
55PC0716-20-*	20	19 x 32	.0365	.0375	.0385	11.4	.0671	.0695	.0719	5.49	5.78
55PC0716-18-*	18	19 x 30	.0452	.0464	.0476	7.1	.0769	.0795	.0821	7.93	8.34
55PC0716-16-*	16	19 x 29	.0514	.0527	.0538	5.5	.0844	.0870	.0896	9.84	10.28

WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C

Maximum continuous conductor temperature

VOLTAGE RATING: 1000 volts (rms)

COLOR: White preferred

CROSSLINKING PROOF TEST: 300 ± 3°C for 1 hour

IDENTIFICATION AND COLOR STRIPING DURABILITY:

125 cycles (250 strokes) (minimum), 500 g weight

INSULATION ELONGATION AND TENSILE STRENGTH:

Total Insulation,

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in² (minimum)

INSULATION FLAWS:

Spark Test, 3.0 kV (rms), 60 Hz

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION THICKNESS: .015 in. (nominal) total insulation

SHRINKAGE: 230 ± 3°C for 1 hour, 0.125 in.(maximum) in 12 in.

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL):

2500 volts (rms)

PART NUMBER:

The ** in the part numbers above shall be replaced by color code designators.

Example: AWG 22, white: 55PC0716-22-9

AWG 22, white with black stripe: 55PC0716-22-90

COLOR AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681.

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