

1. CONDUCTOR

Material: Silicone Blocked Tin Plated Copper
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: Crosslinked Fluoroelastomer, J5
 Wall thickness
 Minimum: 0.28mm
 Minimum Average: 0.32mm
 Nominal: 0.40mm
 Diameter: See Table 1
 Color: SAE Color Standard

3. PHYSICAL CHARACTERISTICS

Temperature rating: 150°C
 Voltage rating: 60 V_{DC}
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical

Tensile Strength

Unaged 10.34 MPa, min
 Aged (168 hrs @ 180°C) 80% retention, min

Elongation

Unaged 150%, min
 Aged (168 hrs @ 180°C) 50% retention, min

Crosslinking

Core Not Visible

Anticapillary Action

Test 1

Fill a test tube to 25mm with ATF. From the sample, cut 6 specimens to 142mm with 10mm stripped and place in the tube. Apply a vacuum of 100mm Hg through the stopper for 1 hr. After outside of specimens are dry, slice off insulation for evidence of wicking up the conductor and/or inside surface of the insulation.

Fluid shall not travel up the conductor more than 20mm.

Test 2

Condition cable 48 hours at 165°C prior to performing Test 1.

Test 3 (3.0mm² only)

Condition cable 48 hours at 165°C prior to performing Test 1. Use diesel engine oil (CH4 or equivalent) and apply a vacuum of 220mm Hg

PERFORMANCE PROPERTIES (cont'd)

Strip Force (50mm Slug @ 50 mm/min) See Table 1
 Abrasion (SAE J1128 – STS) 150mm
 Pinch Resistance (SAE J1128 – STS) See Table 1
 Shrinkage None Allowed

Thermal

Flame Resistance 70 sec burn, max
 Accelerated Life in ATF
 Place five 150mm samples in ATF (Dextron III) for 720 hrs at 150°C. OD shall not increase greater than 20%. Insulation shall not crack or deteriorate after 1X mandrel wrap. Pass Dielectric Test and 11N minimum pinch.

Cold Bend

No Cracks or Splits, Pass Dielectric Test

Electrical

Dielectric Test 1000V, 60 Hz, 60 Sec
 Spark Test 2500V

Chemical

Ozone Resistance No Cracks

Fluid Compatibility

Engine Oil (IRM 902) 15%
 Gasoline (Ref. Fuel C) 15%
 Ethanol / Ref. Fuel C Mixture 15%
 Diesel Fuel 15%
 Power Steering (IRM 903) 30%
 Auto Trans. (Dextron III) 25%
 Engine Coolant 50/50 15%
 Battery Acid (sp. Gr. ~ 1.26) 5%

5. REFERENCE SPECIFICATION

SAE J1128



JUDD WIRE INC.
 124 Turnpike Road
 Turners Falls, MA 01376
 (413) 863-4357

Date	Rev	By	Appr'd	ECN
05/18/05	---	EJK	GBM	---
09/28/07	B	ARJP	GBM	06-179
11/12/07	C	EJK	GBM	07-309
Customer Approval:				

Description: HOOKUP, XLFE, THIN WALL, SILICONE BLOCKED	
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Table 1

CONDUCTOR				INSULATION				
Size (mm ²)	Construction	Nominal Strand Diameter (mm)	Maximum DC Resistance @ 20°C(mΩ/M)	Nominal Diameter (mm)	Nominal Weight (kg/km)	Adhesion (N)		Minimum Average Pinch Resistance (kg)
						Min	Max	
0.35	7	0.250	56.6	1.55	5.95	10	55	TBD
0.50	7	0.306	32.2	1.72	7.99	10	65	2.5
0.50	19	0.190	32.2	1.72	8.45	10	65	2.5
0.80	19	0.230	24.9	2.04	12.5	7	75	3.6
1.00	19	0.297	15.3	2.17	15.6	TBD	TBD	TBD
2.00	19	0.361	9.76	2.59	23.0	TBD	TBD	TBD



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