

1. CONDUCTOR

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

2. INSULATION

Material: Crosslinked Polyolefin
 Wall thickness: See Table 1
 Diameter: See Table 1
 Color: SAE Color Standard

3. PHYSICAL CHARACTERISTICS

Temperature rating: 125 °C
 Voltage rating: 60 V_{dc}
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical - SAE J1128 – GXL

Tensile Strength

Unaged 10 MPa, min.
 Aged (168 hr @ 155 °C) 80% retention, min.

Elongation

Unaged 150%, min.
 Aged (168 hr @ 155 °C) 50% retention, min.

Crosslink Verification Core Not Visible

Adhesion (50mm Slug @ 500 mm/min)

See Table 1

Abrasion

See Table 1

Pinch Resistance

See Table 1

Thermal - SAE J1128 – GXL

Flame Resistance 30 s burn, max.
 50 mm unburnt insulation, min.

Cold Bend (3 hrs @ -40 °C)

No Cracks or Splits, Pass Dielectric Test

Electrical - SAE J1128 – GXL

Dielectric Test 1000V, 60 Hz, 60 s

Spark Test 2500V

Conductor (ASTM B33)

DCR See Table 1

Chemical - SAE J1128 – GXL

Ozone Resistance No Cracks or Splits

Fluid Compatibility

Pass Dielectric Test
 OD Change, max.

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. (Dexron VI) 25%
 Engine Coolant 50/50 15%
 Battery Acid (sp. Gr. ~ 1.26) 5%

PERFORMANCE PROPERTIES (con't)

Anticapillary Action

Test 1

Fill 6 test tubes to 25 mm with ATF. From the sample, cut 6 specimens to 142 mm with 10 mm stripped on each end and place a specimen in each tube with the stripped end submerged. Connect one end of each specimen to the vacuum and apply a vacuum of 100 mm Hg to each specimen for 1 hr. (See Figure 1). Remove each specimen and allow it to dry. After the outside of the 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 20 mm.

Test 2

Condition the cable 48 hours @ 160 °C prior to performing Test 1.

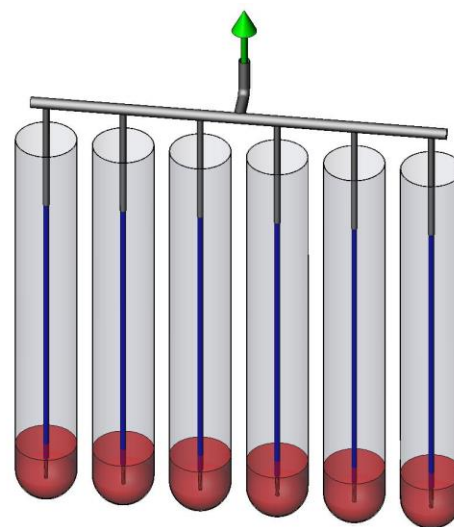


Figure 1: Anticapillary Test Set-up

5. PROCEDURAL REFERENCE SPECIFICATION

SAE J1128

6. REFERENCE PRODUCT SPECIFICATION

Mercury Marine 84-858280



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

Date	Rev	By	Appr'd	ECN
02/12/08	---	ARJP	EJK	---
01/20/12	E	RMB	RTB	12-1080
10/13/17	F	RTB	CHU	17-1865
Customer Approval:				

Description: HOOKUP, XLPE, THIN WALL, SILICONE BLOCKED	
Specification Number: JW1197-08	Page: 1 of 2

Table 1

Conductor				Insulation								
Size	Construction	Nominal OD	Maximum DCR	Wall Thickness		Nominal OD	Sandpaper Abrasion Resistance		Minimum Pinch Resistance	Nominal Weight	Adhesion	
(mm ²)	(Strands/mm)	(mm)	(mΩ/m)	Min. (mm)	Nom. (mm)	(mm)	Mass (kg)	Min. Avg. (mm)	(kg)	(kg/km)	Min. (lb)	Max. (lb)
0.80	19/.25	1.24	24.9	0.41	0.58	2.46	0.45	410	4.1	13.9	4	11
1.00	19/.28	1.37	15.3	0.41	0.58	2.54	0.45	420	4.7	17.0	4	11
3.00	19/.45	2.16	36.6	0.46	0.66	3.80	1.40	280	7.2	38.9	TBD	TBD



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