

1. CONDUCTOR

Material: See Table 1
 Blocking Agent: Silicone
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: Irradiation Cross-linked Polyolefin
 Wall thickness: See Table 1
 Diameter: See Table 1
 Color: SAE Color Standard
 Marking:
 GXL ** AWG ANTICAPILLARY JUDD WIRE INC.

** Notation Indicates Gauge Size

3. PHYSICAL PROPERTIES

Temperature Rating: 135°C
 Voltage Rating: 50V

4. PERFORMANCE PROPERTIES

Mechanical

Tensile Strength
 Unaged 10 MPa, min
 Aged (168 hrs @ 165°C) 80% retention, min
 Elongation
 Unaged 150%, min
 Aged (168 hrs @ 165°C) 50% retention, min
 Crosslinking Core Not Visible
 Pinch Resistance See Table 1
 Abrasion Resistance See Table 1
 Shrinkage None Allowed

Electrical

Dielectric Strength 1000V, 60 Hz, 60 Sec
 Spark Test 2500V_{ac}
 Conductor DC Resistance See Table 1

Thermal

Flame Resistance 70 Sec Burn, max
 Cold Bend
 No Cracks or Splits, Pass Dielectric Test

Chemical

Ozone Resistance No Cracks
 Fluid Compatibility O.D. 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 (Cont'd)

Anticapillary Action

Fill 6 test tubes to 25mm with dyed distilled water. From the sample, cut 6 specimens to 142mm with 10mm 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 100mm 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 15mm.

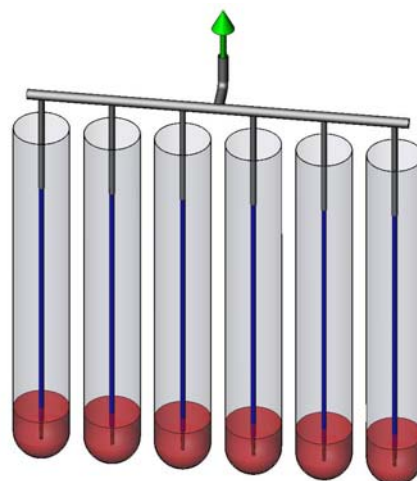


Figure 1: Anticapillary Test Set-up

5. PROCEDURAL REFERENCE SPECIFICATION
 SAE J1128 (GXL)



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

Date	Rev	By	Appr'd	ECN
01/04/02	---	LW	MG	---
03/01/13	G	KST	RTB	13-1348
06/26/13	H	KA	RMB	13-1396
Customer Approval:				

Description: HOOKUP, SILBLK, XLPO, GXL, 135°C, 50V	
Specification Number: JW853-02	Page: 1 of 2

Table 1

CONDUCTOR					INSULATION						
Size (AWG)	Material	Stranding	Diameter nom (mm)	Max DCR (mΩ/m)	Wall Thickness (mm)		Diameter (mm)	Minimum Abrasion Resistance		Minimum Pinch Resistance (kg)	Nominal Weight (Kg/km)
					Min	Nom		Weight (kg)	Length (mm)		
14	SBB	19/27	1.78	9.19	0.41	0.61	3.00 ± 0.05	0.45	410	5.6	24.8
14	SBT	19/27	1.78	9.76	0.41	0.61	3.00 ± 0.05	0.45	410	5.6	24.8
16	SBB	19/29	1.37	15.3	0.41	0.58	2.54 ± 0.05	0.45	420	4.7	17.1
16	SBT	19/29	1.37	15.3	0.41	0.58	2.54 ± 0.05	0.45	420	4.7	17.1
18	SBB	19/30	1.22	19.6	0.41	0.58	2.39 ± 0.05	0.45	430	4.1	13.9
18	SBT	19/30	1.25	24.9	0.41	0.58	2.41 ± 0.05	0.45	430	4.1	14.0



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