

1. CONDUCTOR

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

2. INSULATION

Material: Crosslinked Polyolefin
 Wall Thickness
 Minimum: See Table 1
 Nominal: See Table 1
 Diameter: See Table 1
 Color Standard: SAE or JUDD

3. PHYSICAL CHARACTERISTICS

Temperature Rating: 135 °C
 Voltage Rating: 60 V_{dc}
 Weight: See Table 1

**4. PERFORMANCE PROPERTIES
 INSULATION – SAE J1128 TXL**

Mechanical

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

Thermal

Flame Resistance 30 seconds burn, max.
 Cold Bend
 No Cracks or Splits, Pass Dielectric Test

Electrical

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

PERFORMANCE PROPERTIES (Cont'd)

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

Anticapillary Action

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.

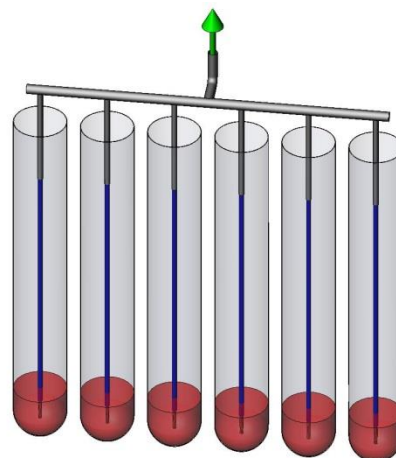


Figure 1: Anticapillary Test Set-up

5. PROCEDURAL REFERENCE SPECIFICATIONS

SAE J1128 (TXL)
 ASTM B3
 ASTM B33



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

Date	Rev	By	Appr'd	ECN
08/20/08	---	EJK	ARJP	---
03/04/16	E	RTB	CHU	16-1669
03/14/16	F	CMS	CHU	16-1677
Customer Approval:				

Description: HOOKUP, SILBLK, XLPO, TXL, 135°C, 60V	
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Table 1

CONDUCTOR					INSULATION						
Size (AWG)	Material	Stranding (# / AWG)	Diameter	DCR	Wall Thickness		Diameter (mm)	Min. Sandpaper Abrasion		Pinch Resistance	Weight
			Nom. (mm)	Max. (mΩ/m)	Min. (mm)	Nom. (mm)		Weight (kg)	Length (mm)	Min. (kg)	Nom. (kg/km)
14	SBB	19 / 27	1.70	9.19	0.28	0.40	2.58 ± 0.10	0.22	450	3.8	21.9
16	SBB	19 / 29	1.40	15.3	0.28	0.40	2.20 ± 0.15	0.22	400	3.1	14.9
18	SBB	19 / 30	1.25	19.6	0.28	0.40	2.05 ± 0.15	0.22	350	2.5	11.9
20	SBB	19 / 32	0.97	34.8	0.28	0.40	1.78 ± 0.10	0.22	300	2.0	8.25
20	SBT	7 / 28	0.97	32.2	0.28	0.40	1.78 ± 0.10	0.22	300	2.0	7.81
20	SBB	7 / 28	0.96	31.6	0.28	0.40	1.78 ± 0.10	0.22	300	2.0	7.63
22	SBB	7 / 30	0.78	52.0	0.28	0.40	1.55 ± 0.10	0.22	250	1.7	5.38



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