

**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<sub>dc</sub>  
 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<sub>ac</sub>  
 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.

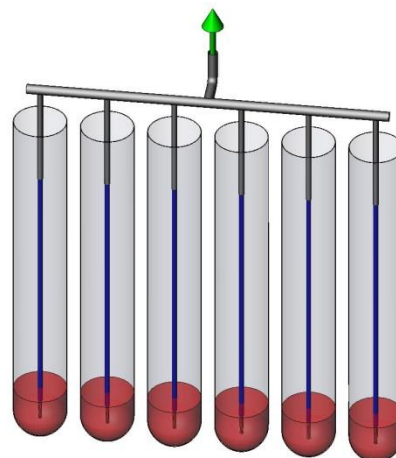


Figure 1: Anticapillary Test Set-up

**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: <b>HOOKUP, SILBLK, XLPO, TXL, 135°C, 60V</b>	
Specification Number: <b>JW1243-08</b>	Page: 1 of 2

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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