

**1. CONDUCTOR**

Material: See Table 1  
Construction: See Table 1  
Diameter: See Table 1

**2. INSULATION**

Material: Crosslinked Polyethylene  
Wall Thickness:  
Min Wall: See Table 1  
Min Avg: See Table 1  
Nom: See Table 1  
Diameter: See Table 1  
Color: SAE Color Standard  
Marking: None

**3. PHYSICAL CHARACTERISTICS**

Temperature rating: 125°C  
Voltage rating: 50V

**4. PERFORMANCE PROPERTIES**

**Mechanical**

**Tensile Strength**

Unaged (SAE J1128) 10 MPa, min  
Aged (WSS-M1L123-A4)  
(168 hrs @ 160°C) 80% retention, min

**Elongation**

Unaged (SAE J1128) 150%, min  
Aged (WSS-M1L123-A4)  
(168 hrs @ 160°C) 50% retention, min

**Crosslink Verification (Hot Plate Method)**

Core Not Visible, Pass Dielectric Test

Pinch Resistance (J1128 TXL) Per Thin Wall

Abrasion Resistance (J1128 TXL) Per Thin Wall

Strip Force (2" slug @ 20"/min) 4.0 lb, min

**PERFORMANCE PROPERTIES (Cont'd)**

**Electrical - SAE J1128**

Dielectric Strength 1000V, 60 Hz, 60 Sec  
Conductor DCR See Table 1

**Thermal**

Flame Resistance (J1128) 70 Sec Burn, Max  
Cold Bend (4 hrs @ -40°C, J1128)

No Cracks or Splits, Pass Dielectric Test

High Temperature Resistance (WSS-M1L123-A4)  
(168 hrs @ 165°C)

No Cracks or Splits, Pass Dielectric Test

**Chemical**

Ozone Resistance (SAE J1128) (192 hrs @ 65°C)  
No Cracks, Pass Dielectric

**Fluid Compatibility (SAE J1128)**

O.D. Change, max

Engine Oil (IRM 902) 15%  
Gasoline (Ref. Fuel C) 15%  
Ethanol / Ref. Fuel C Mixture 15%  
Power Steering (IRM 903) 30%  
Auto Trans. (Dexron VI) 25%  
Engine Coolant 50/50 15%  
Battery Acid (Sp. Gr.1.26) 5%

**Flex Fuel Compatibility (WSS-M1L123-A4)**

O.D. Change, max

After Immersion/After Dry-out

C[E10] +10%/-6%  
C[E85] +10%/-6%  
C[M15] +10%/-6%  
PN 180 +10%/-6%

Mechanical, Post Dry (Note: Fuel PN180 is excluded)

Tensile Strength 80% retention, min  
Elongation 50% retention, min

**5. PROCEDURAL REFERENCE SPECIFICATIONS**

SAE J1128  
FORD WSS-M1L123-A4



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

Date	Rev	By	Appr'd	ECN
11/22/11	S	RMB	RTB	11-1050
01/20/12	T	RTB	RMB	12-1081
05/01/14	U	CHU	RTB	14-1511

Customer Approval:

Description:

**HOOKUP, THIN WALL, G12,  
XLPE, 125°C, 50V**

Specification Number:

**JW573-98**

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Table 1

CONDUCTOR						INSULATION						
Size (AWG)	Material	Stranding (#/mm)	Diameter Nom (mm)	CMA Min (mm <sup>2</sup> )	DCR, Max (mOhms/m)	Wall Thickness (mm)			Diameter (mm)			Weight Nom (kg/km)
						Min	Min Avg	Nom	Min	Nom	Max	
0.30	TPC	7/.25	0.75	0.30	60.2	0.305	0.365	0.406	1.48	1.55	1.63	4.96
22	BC	7/.25	0.76	0.31	55.0	0.305	0.365	0.406	1.50	1.55	1.61	5.20
22	BC	19/.16	0.76	0.31	55.0	0.305	0.365	0.406	1.50	1.55	1.61	5.48
22	TOP	7/.25	0.76	0.31	54.8	0.305	0.365	0.406	1.50	1.55	1.61	5.60
22	TPC	7/.25	0.76	0.32	54.8	0.305	0.365	0.406	1.50	1.55	1.61	5.22
22	TPC	19/.16	0.76	0.31	55.0	0.305	0.365	0.406	1.50	1.55	1.61	5.41
22	SPC	7/.25	0.76	0.32	51.2	0.305	0.365	0.406	1.50	1.55	1.61	5.14
20	BC	7/.32	0.96	0.54	34.6	0.305	0.365	0.406	1.70	1.78	1.85	7.42
20	BC	19/.20	0.96	0.54	34.8	0.305	0.365	0.406	1.70	1.78	1.85	6.10
20	SPC	7/.32	0.96	0.55	34.8	0.305	0.365	0.406	1.70	1.78	1.85	7.35
20	TPC	7/.32	0.97	0.54	34.1	0.305	0.365	0.406	1.70	1.78	1.85	7.44
20	TPC	19/.20	0.97	0.54	34.1	0.305	0.365	0.406	1.70	1.78	1.85	5.97
20	SPC	19/.20	0.95	0.57	30.2	0.305	0.365	0.406	1.70	1.78	1.85	5.08
0.75	BC	19/.23	1.16	0.76	22.7	0.305	0.365	0.406	1.88	1.95	2.03	9.91
18	BC	19/.23	1.17	0.76	23.3	0.305	0.365	0.406	1.91	1.98	2.06	9.71
18	BC	16/.26	1.19	0.80	25.2	0.305	0.365	0.406	1.91	1.98	2.06	7.94
18	TPC	16/.26	1.19	0.80	25.2	0.305	0.365	0.406	1.91	1.98	2.06	7.94
18	TPC	19/.23	1.12	0.76	22.5	0.305	0.365	0.406	1.91	1.98	2.06	9.82
18	TOP	19/.26	1.19	0.79	20.4	0.305	0.365	0.406	1.91	1.98	2.06	12.6
18	SPC	19/.25	1.18	0.90	19.0	0.305	0.365	0.406	1.91	1.98	2.06	11.1
16	BC	19/.28	1.37	1.18	14.9	0.305	0.365	0.406	2.18	2.26	2.34	14.2
16	TPC	19/.28	1.37	1.20	15.8	0.305	0.365	0.406	2.18	2.26	2.34	14.5
16	SPC	19/.28	1.34	1.15	15.8	0.305	0.365	0.406	2.18	2.26	2.34	14.3
1.25	BC	37/.21	1.47	1.13	14.7	0.305	0.365	0.406	2.19	2.27	2.35	14.8
1.50	TPC	19/.31	1.50	1.39	13.0	0.305	0.365	0.406	2.22	2.30	2.38	16.1
14	BC	19/.36	1.73	1.87	9.06	0.305	0.365	0.406	2.54	2.62	2.69	21.5
14	TPC	19/.36	1.73	1.90	10.0	0.305	0.365	0.406	2.54	2.62	2.69	21.8
14	SPC	19/.36	1.68	1.84	10.0	0.305	0.365	0.406	2.54	2.62	2.69	21.0
12	TPC	19/.47	2.29	3.02	6.30	0.381	0.411	0.457	3.10	3.20	3.30	33.2
12	BC	19/.47	2.29	3.02	6.30	0.381	0.411	0.457	3.10	3.20	3.30	33.2



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