

**1. CONDUCTOR**

Material: Bare Copper  
 Construction: See Table 1  
 Diameter: See Table 1

**2. INSULATION**

Material: Crosslinked Polyvinyl Chloride  
 Wall thickness: See Table 1  
 Diameter: See Table 1  
 Color Standard: JASO

**3. PHYSICAL CHARACTERISTICS**

Temperature rating: 105 °C  
 Voltage Rating: 60 V  
 Weight: See Table 1

**4. PERFORMANCE PROPERTIES**

**Mechanical**  
 Tensile Strength 15.7 MPa, min.  
 Elongation 125%, min.  
 Cross-linking Degree 40 %, min.  
 Abrasion Resistance  
 See Table 1, 0.45 mm Blade See Table 1

**PERFORMANCE PROPERTIES (Cont'd)**

**Electrical**  
 Dielectric Strength 1000 V, 60 Hz, 60 s  
 Spark Test 5000 V<sub>ac</sub>  
 Conductor  
 DC Resistance (JIS C 3005) See Table 1

**Thermal**  
 Heat Resistance I (168 hr @ 120 °C)  
 1000 V, 60 s, No Cracks  
 Heat Resistance II (30 min. @ 200 °C)  
 No Cracks, No Melt  
 Flame Resistance 15 s Burn, max.  
 Low Temperature Resistance (3 hr @ -45 °C)  
 1000 V, 60 s, No Cracks  
 Thermal Shrinkage (15 min. @ 150 °C) 4 %, max.


**Chemical**  
 Oil Resistance (20 hr @ 50 °C)  
 1000 V, 60 s, No Cracks

**5. PROCEDURAL REFERENCE SPECIFICATIONS**

JASO D 608  
 JIS C 3005

Table 1

Conductor				Insulation							
Size (mm <sup>2</sup> )	Construction (# / Nom., mm)	Diameter Nom. (mm)	DC Resistance Max @ 20 °C (mΩ/m)	Wall Thickness (mm)			Diameter (mm)		Abrasion Resistance		Weight, Nom., (kg/km)
				Min.	Min. Avg.	Nom.	Nom.	Max.	Load (N)	Cycles, Min.	
0.30f	19/16	0.80	48.6	0.24	0.27	0.30	1.40	1.50	7	300	4.86
0.50f	19/19	1.00	36.7	0.24	0.27	0.30	1.63	1.70	7	300	6.62
0.75f	19/23	1.20	23.6	0.24	0.27	0.30	1.80	1.90	7	350	9.27
0.85f	19/24	1.20	21.7	0.24	0.27	0.30	1.80	1.90	7	350	9.65
1.25f	37/21	1.50	14.6	0.24	0.27	0.30	2.10	2.20	7	450	14.0
1.50	19/31	1.50	12.7	0.32	0.36	0.40	2.30	2.40	7	TBD	15.9
2.00f	37/26	1.80	9.50	0.32	0.36	0.40	2.60	2.70	7	1500	21.9
2.50f	50/26	2.10	7.60	0.32	0.36	0.40	2.90	3.10	7	TBD	26.3
4.00f	56/30	2.60	4.71	0.40	0.45	0.50	3.60	3.80	7	TBD	41.8



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

Date	Rev	By	Appr'd	ECN
12/12/11	---	RMB	RTB	---
09/30/14	C	CHU	RMB	14-1546
04/01/15	D	RB	RMB	15-1589
Customer Approval:				

Description:  
**HOOKUP, BC, XLPVC,  
 AVSSX, 105°C**

Specification Number:  
**JW1398-11**

Page:  
 1 of 1