

# THHN/PVC

## CONSTRUCTION AT A GLANCE

**CONDUCTOR TYPE** ①  
16 - 10 AWG COPPER

**INSULATION TYPE** ②  
PVC/NYLON

**SHIELD TYPE**  
N/A

**JACKET TYPE** ③  
PVC

## APPLICATIONS

- Predominantly used in utility substations
- Can be installed indoors or outdoors, in cable trays, conduit, underground duct, or direct buried in wet or dry locations
- Conductor operating temperatures are not to exceed 75°C wet, 90°C dry
- Rated 600 Volts

## CONSTRUCTION DETAILS

- **Conductors**
  - 16 AWG thru 10 AWG Annealed Class B Copper Unilay Compressed Stranded
- **Insulation**
  - Tough, Heat and Moisture Resistant Polyvinyl Chloride (PVC)
  - Color Coded per ICEA S-73-532, Method 1, Table E-2
- **Conductor Jacket**
  - Clear Nylon (polyamide)
- **Assembly**
  - Cabled with non-hygroscopic polyethylene fillers in order to give the cable a circular cross-section, when needed
  - Wrapped with a Mylar binder
- **Overall Jacket**
  - Heat, Moisture and Sunlight Resistant Black Polyvinyl Chloride (PVC)
- **Print**
  - SOUTHWIRE XXAWG XX/C THHN or THWN TYPE TC 600V SUN. RES. DIRECT BURIAL YEAR SEQUENTIAL FOOTAGE MARKS

## SPECIFICATIONS

**Southwire's Type TC Substation Control Cable meets or exceeds:**

- All applicable ASTM standards
- ANSI/ICEA S-73-532
- UL 83 Type THHN
- UL 66 Type TFFN
- UL 1277
- UL 1581
- UL 1685
- RoHS Compliant

## OPTIONS

- Stranding Classes – C, K
- Tin-Coated Copper Conductors
- Color Coding Methods per ICEA S-73-532
- Shielded Constructions - Longitudinal Corrugated CU Tape, Helical CU or AL Tape, or Longitudinal AL Tape with Mylar Bonding
- Rip Cord
- Ground Wire
- Jacket Materials – SOLONON® (LSZH), CPE
- UL Listed Construction
- Other Constructions Available upon Request



Number of Conductors	Conductor Size (AWG)	Nominal Jacket Thickness (inches)	Nominal Overall Diameter		Approximate Weight	
			inches	mm	lbs/1000 ft.	kg/km
<b>Unshielded AWG 16 (26 strands)</b>						
2	16	0.045	0.288	7.3	43	64
3	16	0.045	0.303	7.7	53	79
4	16	0.045	0.329	8.4	66	98
5	16	0.045	0.357	9.1	81	120
7	16	0.045	0.386	9.8	103	153
9	16	0.045	0.447	11.4	134	199
12	16	0.045	0.501	12.7	165	245
<b>Unshielded AWG 14 (7 strands)</b>						
2	14	0.045	0.305	7.8	56	83
3	14	0.045	0.322	8.2	74	110
4	14	0.045	0.350	8.9	93	139
5	14	0.045	0.381	9.7	109	162
6	14	0.045	0.413	10.5	129	192
7	14	0.045	0.413	10.5	145	215
8	14	0.045	0.446	11.3	164	243
9	14	0.045	0.478	12.2	182	271
10	14	0.060	0.550	14.0	217	322
12	14	0.060	0.568	14.4	251	373
<b>Unshielded AWG 12 (7 strands)</b>						
2	12	0.045	0.340	8.6	75	112
3	12	0.045	0.360	9.2	105	156
4	12	0.045	0.392	10.1	128	190
5	12	0.045	0.428	10.9	154	229
6	12	0.045	0.466	11.8	183	272
7	12	0.045	0.466	11.8	207	308
8	12	0.045	0.504	12.8	234	349
9	12	0.060	0.572	14.5	277	412
10	12	0.060	0.621	15.8	307	457
12	12	0.060	0.641	16.3	358	532
<b>Unshielded AWG 10 (7 strands)</b>						
2	10	0.045	0.407	10.3	111	166
3	10	0.045	0.433	11.0	155	230
4	10	0.045	0.473	12.0	198	294
5	10	0.060	0.549	13.9	250	371
6	10	0.060	0.596	15.1	294	437
7	10	0.060	0.596	15.1	333	495
8	10	0.060	0.645	16.4	377	561
9	10	0.060	0.693	17.6	421	626
10	10	0.060	0.755	19.2	467	694
12	10	0.060	0.780	19.8	547	814

Dimensions and weights shown above are nominal and subject to industry tolerances.

