

RHH/RHW-2/USE-2 FR-CROSS-LINKED POLYETHYLENE INSULATION, 600 VOLT WITH PROTECTIVE JACKET

SCOPE:

This specification covers Aetna Insulated Wire's standard construction for copper conductors insulated with flame retardant cross-linked polyethylene (XLP). These cables are referred to in the industry and recognized by NEC as type RHH or RHW-2 or USE-2.

PRODUCT SPECIFICATIONS AND RATINGS:

- i) National Fire Protection Association (NFPA 70), National Electric Code (NEC)
- ii) UL 44 Thermoset-Insulated Wire and Cables
- iii) UL 854 Service Entrance Cables
- iv) ICEA S-95-658/NEMAWC70 Nonshielded Power Cables Rated 2000 Volts or Less
- v) Federal Specification J-C-30B Cable and Wire, Electrical
- vi) See individual product sheets for specific listings and ratings

APPLICATION:

RHH or RHW-2 or USE-2 are recognized TYPE designations in NEC Article 310 and as such these cables are suitable for use as permitted in the NFPA70: National Electric Code. These cable types are a heavier insulated wire than XHHW-2. They are approved for use in circuits not exceeding 600 volts, where the maximum operating temperature does not exceed 90°C, in wet or dry locations. Maximum allowable emergency overload temperature is 130°C and Maximum short circuit temperature is 250°C. RHH or RHW-2 or USE-2, are for use in applications between buildings, in conduits or ducts or in open air or direct buried. Type USE-2 is primarily for use in direct burial applications for Service Entrance.

CONSTRUCTION DATA:

Conductors- The conductors consist of uncoated soft, copper strands meeting the requirements of ASTM B3. Unless otherwise specified the conductors are supplied as Class B compressed per ASTM B8.

Insulation- The insulation is flame-retardant cross-linked polyethylene (XLP) extruded concentrically over the conductor to the wall thickness as specified in the governing specifications.

Jacket- Cables are supplied with protective jacket of sunlight and ozone resistant polyvinyl chloride (PVC) or chlorinated polyethylene (CPE) or low smoke halogen free (LSHF) Polyolefin extruded directly over the insulation.

**RHH or RHW-2 or USE-2/JACKET
FR-CROSS-LINKED POLYETHYLENE INSULATION, 600 VOLT
PVC or CPE JACKET**

SPEC 1-60-1

Ver. 8.0
Revised: 07/04/13



90°C CONDUCTOR TEMPERATURE, WET OR DRY							
Conductor			Insulation in Mils	Jacket in Mils	Approximate O.D. in Inches	Ampacity** 90°C	Approximate Net Weight Lbs/Kft
Size AWG or KCMIL	No. of Strands	Nominal O.D in Inches					
SINGLE CONDUCTOR 600 VOLT							
8*	7	0.14	60	30	0.39	55	110
6*	7	0.18	60	30	0.43	75	145
4*	7	0.23	60	30	0.48	95	205
2	7	0.27	60	30	0.52	130	290
1	19	0.30	80	45	0.59	145	365
1/0	19	0.34	80	45	0.63	170	440
2/0	19	0.38	80	45	0.67	195	535
3/0	19	0.42	80	45	0.71	225	655
4/0	19	0.48	80	45	0.77	260	800
250	37	0.52	95	65	0.86	290	965
300	37	0.57	95	65	0.91	320	1135
350	37	0.62	95	65	0.96	350	1305
400	37	0.66	95	65	1.00	380	1470
500	37	0.74	95	65	1.08	430	1800
600	61	0.81	110	65	1.18	475	2155
750	61	0.91	110	65	1.28	535	2645
1000*	61	1.12	110	65	1.49	615	3480

Note: **Based on three conductors in raceway or conduit, 30°C ambient temperature per NEC.

*Compressed conductors.

The above data is approximate and subject to normal manufacturing tolerances.

STANDARDS AND RATINGS:

1. Conductors listed by UL as Type RHW-2 per Standard UL 44.
2. Conductors listed by UL as Type USE-2 per Standard UL 854.
3. Listed by UL as Sunlight Resistant.
4. Sizes 1/0AWG and larger are listed by UL For CT Use and IEEE 1202/FT4 Vertical Tray Flame Test per Standard UL 1685.
5. Conforms to ICEA S-95-658/NEMA WC70 Nonshielded 0-2KV Cables.