



Standard Specification for ACSR Twisted Pair Conductor (ACSR/TP)¹

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1. Scope

1.1 This specification covers ACSR Twisted Pair Conductor (ACSR/TP) for use as overhead electric conductors (see Notes 1 and 2).

NOTE 1—The conductor is fabricated from two component conductors of the same size twisted around each other. This conductor is identified by the code name of the component ACSR conductor followed by “/ TP” or the size and type of the component ACSR conductor followed by “/ TP”.

NOTE 2—There are registered trademark symbols that are also used to identify the twisted pair notation. Consult cable manufacturers for additional details.

1.2 The values stated in inch-pound or SI units are to be regarded separately as standard. Each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the specification. For conductor sizes designated by AWG or kcmil, the requirements in SI units have been numerically converted from corresponding values stated or derived in inch-pound units. For conductor sizes designated by SI units only, the requirements are stated or derived in SI units.

1.2.1 For density, resistivity and temperature, the values stated in SI units are to be regarded as standard.

2. Referenced Documents

2.1 The following documents of the issue in effect on the date of material purchase form a part of this specification to the extent referenced herein:

2.2 ASTM Standards:

B 232 Specification for Concentric-Lay Stranded Aluminum Conductors, Coated Steel Reinforced (ACSR)²

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

¹ This specification is under the jurisdiction of ASTM Committee B01 on Electrical Conductors and is the direct responsibility of Subcommittee B01.07 on Conductors of Light Metals.

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² Annual Book of ASTM Standards, Vol 02.03.

3.1.1 *component conductors*—the two conductors twisted to fabricate the finished TP.

4. Ordering Information

4.1 Orders for material under this specification shall include the following information:

4.1.1 Quantity of each size,

4.1.1.1 *Conductor Size*—kcmil area of the fabricated TP ($2 \times$ kcmil area of one of the component conductors),

4.1.2 Conductor type and the number of wires of the component conductors,

4.1.3 The type of steel core wire and type of coating,

4.1.4 Place of inspection,

4.1.5 Package size and type,

4.1.6 Special package markings, if required, and

4.1.7 Heavy wood lagging, if required.

5. Requirements for Component Conductors

5.1 Before twisting, the component conductors shall conform to the requirements of Specification B 232.

6. Twist

6.1 The component conductors shall be twisted about themselves with a complete twist every 9 ± 1 ft. This twist length shall be measured between the twisting machine and the take-up reel with normal take-up tension on the TP.

NOTE 3—The twist length can be altered as the TP is wound up onto the take-up reel. It may not have the same twist length as when the TP is removed from the reel.

6.2 The direction of the twist shall be left hand.

7. Construction Requirements

7.1 Construction requirements are given in Table 1 for ACSR / TP.