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Whether Wire Breaks

Gr 1

or Not

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Indian Standard

METHODS OF TEST FOR CABLES

"RE-AFFIRMED 1996"

PART 3 WRAPPING TEST FOR ALUMINIUM WIRES

- 1. Scope Covers a method to determine the ductility of aluminium wire used as conductors for electric cables.
- 2. Significance This test brings out the property of the material, which makes it suitable for winding and twisting. Cable conductors during the process of manufacture as well as during installation are subjected to torsion due to axial twist and might break, if material is not sufficiently ductile. The properties checked by wrapping test ensure the suitability of material as cable conductor.
- 3. Terminology
- 3.1 Break For the purpose of this test, the word 'break' shall mean separation of wires.
- 4. Apparatus
- 4.1 No specific apparatus is required.
- 4.2 A grip and revolving chuck may be used, if found convenient.
- 5. Material No material other than test specimen is required for performing this test.
- 6. Test Specimen
- 6.1 Wire sample taken out from the lot.
- 6.2 Number of Specimens One.
- 7. Conditioning No pre-conditioning is required.
- 8. Procedure
- 8.1 The wire used for conductor shall be wrapped round its own diameter to form a close helix of 8 turns; 6 turns shall then be unwrapped and again closely re-wrapped in the same direction as before.

Diameter of Wire mm

- 8.2 The wire is said to have passed the test, if the wire does not break.
- 9. Tabulation of Observations

Sample No.

Calculation — Not involved.			
Report			
Reference Specification			
Sample No.	Wire Bre	Wire Breaks/Does not Break	