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Test Method for Cable Weld Integrity

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1.0 SCOPE

This test procedure provides methods for evaluating and determining defects along the welded seam of coaxial cables whose outer conductor shield is constructed of a welded, aluminum or copper strip. This procedure may be used to inspect finished coaxial cable's outer conductor; either smooth or corrugated.

Note: For instances where the bond of the dielectric to outer metallic sheath is too aggressive for removal, a cone-expansion test method section 5.0 is offered as an alternative.

2.0 EQUIPMENT

The following equipment is needed in order to perform the weld integrity test with dye penetrant. In some instances, a manufacturer or part number may be provided for example or reference. This does not exclude the use of equivalent materials from alternative suppliers. See equipment listed below.

- 2.1 Coaxial cable cutters, Jacket removal tool, or utility knife
- 2.2 Shop cloths or cotton rags / towels
- 2.3 Band or Scroll saw
- 2.4 Solvent / Degreaser (example - Magaflux[®] Spotcheck[®] SKC-S Cleaner / Remover or equivalent)
- 2.5 Penetrant (example - Magaflux[®] Spotcheck[®] SKL-SP1 Penetrant or equivalent)
- 2.6 Developer (example - Magaflux[®] Spotcheck[®] SKD-S2 Developer or equivalent)
- 2.7 Vented fume hood or a well ventilated work area
- 2.8 Arbor Press or Compression Tester
- 2.9 Expansion Cones (Specific diameters / angles for finished cable sizes – See appendix)
- 2.10 Cable Preparation / Coring Tools

Note: Carefully read and review all instructions with the chemical agents, assuring that safety precautions are observed and followed.