

Technical Comparison: Detectable Marking Tape Construction


Characteristic	Tracetape® Detectable Marking Tape	Foil-Based Tapes
Conductive Element	CCS Tracer Wire	Aluminum Foil Sheet
Conductor Geometry	Round Wire	Flat Sheet
Encapsulation	PE Jacket + Woven PE Film	PE Film Laminate
Resistance to Minor Damage	Wire continuity unaffected by minor surface abrasion	Surface scuffs or tears across foil can interrupt conductivity
Corrosion Resistance	Copper cladding protected by PE jacket	Aluminum foil exposed at edges and defects
Installation Handling	Woven film resists tearing	More susceptible to laminate failure under stress
Common Industry Usage	Located using an electromagnetic locator	Located using a non-ferrous metal detector

Tracetape® Detectable Marking Tape incorporates an integral Copper-Clad Steel (CCS) tracer wire rather than an aluminum foil layer. The design is based on two fundamental engineering considerations:

- **Electrical Path Geometry:** A round conductor provides a defined and continuous electrical path. CCS tracer wire is widely used for underground utility locating systems due to its predictable conductivity and established performance in buried environments.
- **Mechanical Integrity of the Conductive Element:** The conductive element is discrete and jacketed. Minor surface abrasion, scratches, or scuffs to the surrounding tape or polyethylene (PE) jacket do not affect continuity unless the wire itself is severed.