



TECHNICAL INFORMATION

Reference MSDS #1124

NONEL® LEAD LINE

I-28-10-15-03

Nonelectric Shock Tube



Packaging

Length per Spool		Spools / Case	Weight per Case	
2500 ft	763 m	2	22 lbs	10 kgs

Case Dimensions

20	X	9 7/8	X	10 7/8 in
51	X	25	X	28 cm

Product Description

NONEL® LEAD LINE nonelectric shock tube is NONEL shock tube spooled at the factory in 2,500 foot (763 meter) lengths for easy application and deployment. NONEL Lead Line provides maximum flexibility to the blaster in choosing a position of safety from which to initiate nonelectric blast rounds in either underground or surface applications. NONEL Lead Line is the only NONEL product that can be cut and spliced into a NONEL detonator product to construct a custom length nonelectric starter assembly.

NONEL Lead Line shock tube is a small diameter, three-layer plastic tube coated on the innermost wall with a reactive explosive compound. When initiated, NONEL shock tube propagates a low energy signal, similar to a dust explosion, at approximately 6,500 ft/sec (2000 m/sec) along the tube's length with minimal disturbance to the outside of the tube. The signal is transmitted from one NONEL shock tube to another through field-assembled splices.

Application Recommendations

- **Never** use NONEL Lead Line for in-hole use. NONEL Lead Line is for use outside the borehole only. NONEL Lead Line is the only NONEL product that is approved for cutting or splicing to NONEL detonator products.
- **Never** attempt to knot different lengths of shock tube together. Shock tube will not initiate itself through knot connections. It must be spliced.
- **Always** use the plastic connector sleeves packaged in each case of NONEL Lead Line to make a reliable splice connection.
- **Always** splice NONEL Lead Line to NONEL EZTL™ nonelectric trunkline delay detonators, NONEL EZ Det® nonelectric blast initiation system, NONEL TD or NONEL Starter detonators to make-up the nonelectric starter assembly when using NONEL Lead Line as the primary initiator for NONEL blast rounds.

Product Disclaimer

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Application Recommendations

- To make a nonelectric starter assembly using NONEL Lead Line, remove the plastic tube closure and save for later use. Cut off and discard about 10 ft [3m] of tube to expose a fresh-cut end. Cut off the heat-sealed shock tube end from the NONEL detonator that is to be used for the starter assembly. Splice the two freshly-cut ends of NONEL shock tube together (one from the NONEL Lead Line and the other from the NONEL detonator) by inserting them into opposite ends of the plastic connector sleeve and pushing them toward one another until they are both at least 1/4" (.64 cm) in the splice.
- **Never** remove the plastic tube closure from the NONEL Lead Line shock tube until just before splicing. **Always** keep any NONEL Lead Line tube ends sealed and free from dirt and moisture since dirt or moisture in the shock tube may cause a misfire. **Always** trim at least 10 ft [3 m] of tubing whenever dirt and/or moisture may have compromised the open tube ends before making a splice connection or before inserting into a nonelectric shock tube starting device.
- **Always** replace the plastic tube closure over the open end of any NONEL Lead Line that remains on the spool and is intended to be used to make up another nonelectric starter assembly.
- **Always** make the final hook-up of the nonelectric starter assembly to the blast round **only** after all equipment and non-essential personnel are clear of the blast area.
- **Always** unspool NONEL Lead Line by hand if the starter assembly has been spliced to it and is attached to the blast round.
- **Never** attach the starter assembly to the blast round until after the Lead Line deployment is complete whenever NONEL Lead Line is to be unspooled by any method other than by hand,
- **Never** run over NONEL Lead Line with equipment. This may damage the shock tube and may cause a misfire. **Always** replace the NONEL Lead Line if it is damaged.
- When total nonelectric control is required for the initiation of a blast round, **always** initiate NONEL Lead Line with nonelectric shock tube starters specifically designed for that purpose.

Transportation, Storage and Handling

- NONEL Lead Line must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf-life, NONEL Lead Line must be stored in a cool, dry and well-ventilated magazine. Explosives inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.

Hazardous Shipping Description

- Articles, Explosive N.O.S. (HMX, Aluminum) 1.4S UN 0349 II

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