TECHNICAL DATA SHEET

FIRELINE® 13/60 HNS LS

Oil Field Detonating Cord

| Properties sp: #112 | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|
| Explosive Core Load | 13 g/m (60 gr/ft) nominal | | | | | | | |
| | 11.5 g/m (54 gr/ft) minimum | | | | | | | |
| Detonation Velocity | 6400 m/s (21,000 ft/s) nominal | | | | | | | |
| | 6200 m/s (20,340 ft/s) minimum | | | | | | | |
| Shrinkage | 1% maximum @ 246°C (475°F) in 24 hrs | | | | | | | |
| Jacket Thickness | 0.254 mm (0.010 in) minimum | | | | | | | |
| Dimensions | 4.62 mm (0.182 in) nominal | | | | | | | |
| | <u>+</u> 0.20 mm (0.008 in) | | | | | | | |
| Lap Joint Sensitive | No | | | | | | | |
| Product Code | A584010 | | | | | | | |
| Cord Components | HNS explosive core (yellow) | | | | | | | |
| | Shrink resistant braid (yellow/gold) | | | | | | | |
| | Two black stripes / Teflon® jacket (clear) | | | | | | | |

- **Temperature Resistance** is based upon the manufacturer's laboratory tests in air, at ambient pressure only.
- **Shrinkage** is defined as the overall decrease in length.
- **Velocity** was tested unconfined, at ambient pressure.

Hazardous Shipping Description

Cord, Detonating, 1.1D, UN 0065 EX 2007120149

Product Code: A584010

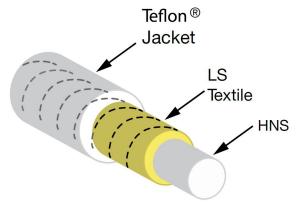


Alternative Packaging: FIREPAK® 1.4 D air cargo shipping containers

Product Code: A584015

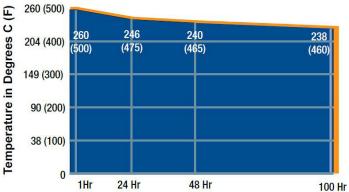
Cord, Detonating, 1.4D UN 0289 EX 2007060067





PRODUCT DESCRIPTION

FIRELINE 13/60 HNS LS is a flexible Ultra High Temerature detonating cord specifically developed for perforating systems that exceed the limits of FIRELINE 13/60 HMX LS. FIRELINE 13/60 HNS LS is Dyno Nobel's best detonating cord for use in ultra high temperature environments and is made from the highest purity HNS explosive feedstock commercially available with "shrinkage resistant" construction and a special extruded high temperature jacket. In addition, FIRELINE 13/60 HNS LS can be used in exposed service systems under certain conditions. Contact your Dyno Nobel representative for details.





Product Disclaimer: Please see reverse side.

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Oil Field Detonating Cord

TRANSPORTATION. STORAGE AND HANDLING

- For maximum shelf-life, detonating cord must be stored in cool, dry, wellventilated magazines. Explosives inventory should be rotated. Use older inventory first.
- Recommended shelf life, under proper storage conditions, is five (5) years from date of manufacture.
- FIRELINE 13/60 HNS LS detonating cords must be transported, stored, handled and used in confromity with all federal, state, provincial and local laws and regulations.

APPLICATION RECOMMENDATIONS

- This product is recommended for exposure to well bore fluids.
- ALWAYS cut FIRELINE 13/60 HNS LS detonating cord with a razor blade.
- ALWAYS utilize an "end-priming" initiatior for use on HNS cords. "Side-priming" not recommended.
- NEVER attempt to cut FIRELINE 13/60 HNS LS detonating cord with a blow from a sharp or blunt object, such as an axe, pipe, wrench or rock.
- NEVER saw FIRELINE 13/60 HNS LS detonating cord; it may explode and kill or injure.
- NEVER cut detonating cord with devices that produce metal-to-metal contact, such as scissors, wire cutters, crimpers or similar instruments.

Packaging

| | Package | Gross Weight | | Net Weight | | Explosive Weight | | Spools/ | Length/ Spool* | | | |
|--|----------------|--------------|------|------------|-----|---------------------|-----|---------|-------------------|-----|--|--|
| | | kg | lbs | kg | lbs | kg | lbs | Case | m | ft | | |
| | Fiberboard box | 4.1 | 9.0 | 3.9 | 8.5 | 1.9 | 4.3 | 1 | 152 | 500 | | |
| | Airpack Box | 17.1 | 37.6 | 3.9 | 8.5 | 1.9 | 4.3 | 1 | 152 | 500 | | |

- · Weights represent nominal values.
- All Weights are approximate.
- * ±2%; 152m spools may contain as many as 3 pieces, totally 152 m, with a minimum splice/piece length of 8 m (25 ft).

X-Ray services are available for high profiel applications requiring an extra level of assurance Product Code: A584011

C€1395

Case Dimensions

Fiberboard: 26 x 26 x 14 cm / 10.25 x 10.25 x 5.5 in

Airpack: 74.3 x 44.1 x 68.27 cm / 29.25 x 17.375 x 26.875 in

ADDITIONAL INFORMATION – Visit **dynonobel.com** for Brochures and Case Studies related to this product.

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