

TECHNICAL DATA SHEET



FIRELINE® 13/60 HMX LS

Oil Field Detonating Cord

Properties

SDS
#1121

Explosive Core Load	13 g/m (60 gr/ft) nominal 11.5 g/m (54 gr/ft) minimum
Detonation Velocity	6800 m/s (22,304ft/s) nominal 6400 m/s (20,992 ft/s) minimum
Shrinkage	1% maximum @ 163°C (325°F) in 24 hrs
Jacket Thickness	0.254 mm (0.010 in) nominal
Dimensions	4.62 mm (0.182 in) nominal ±0.20 mm (0.008 in)
Lap Joint Sensitive	Yes
Product Code	A574010
Cord Components	HMX explosive core (white) Shrink resistant braid (yellow/gold) Nylon jacket (green)

- **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, and after "cool down."



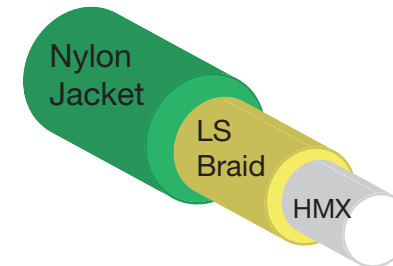
Hazardous Shipping Description

Cord, Detonating, 1.1D, UN 0065 II EX 1992020035

Alternative packaging: PRIMAPAK® 1.4S air cargo shipping containers

Product Code A574017

Articles, Explosive N.O.S., 1.4S UN 0349 II EX 2002010274

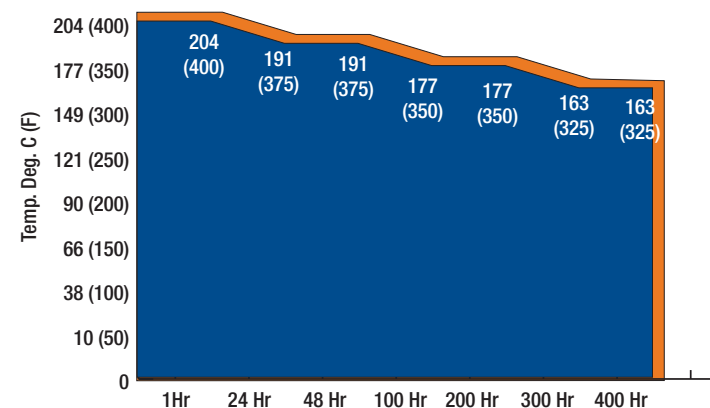


Product Description

FIRELINE 13/60 HMX LS is designed to be used with a tubing or wireline conveyed perforating system used within time and temperature limits (see graph below). This product has been successfully used in carrier-based perforating systems within HMX time and temperature operating ranges (see graph) where the jacket is protected from pressure and/or fluids. Nylon jacket limitations will not normally permit this product to be used in exposed applications within HMX application ranges.

Temperature Range

The temperatures listed are maximum values. DO NOT EXCEED.



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

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Oil Field Detonating Cord

Transportation, Storage and Handling

- For maximum shelf-life, detonating cord must be stored in cool, dry, well-ventilated magazines. Explosives inventory should be rotated. Use older inventory first. Recommended shelf life, under proper storage conditions, is ten (10) years from date of manufacture.
- FIRELINE 13/60 HMX LS detonating cords must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.

Application Recommendations

- **This product is not recommended for exposure to well bore fluids.**
- **ALWAYS** cut FIRELINE 13/60 HMX LS detonating cord with a sharp knife.
- **NEVER** attempt to cut FIRELINE 13/60 HMX 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 HMX 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			Length/ Spool*	
	kg	lbs	kg	lbs	kg	lbs		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 also available for high profile applications requiring an extra level of assurance. Product Code: A574011.

For 1.1D Detonating Cord marked every meter, use Product Code A574010BZ

For 1.4D Detonating Cord marked every meter, use Product Code A574015BZ

CE 0519 Certificate Number ENB/C/021/04

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

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