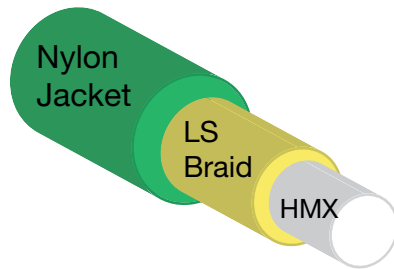


FireLine® 13/60 HMX LS

Oil Field Detonating Cord

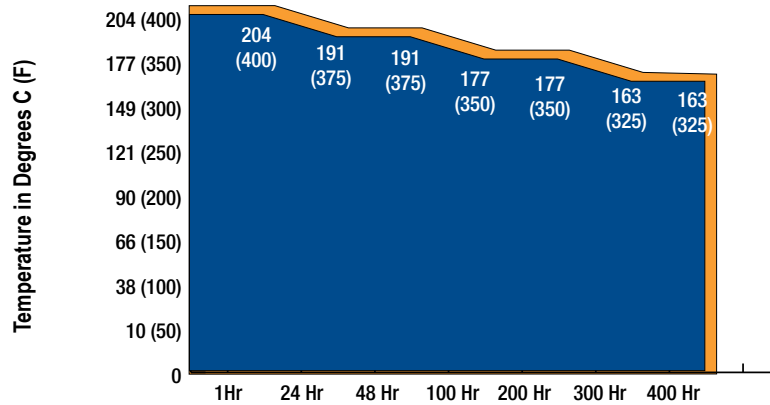


Product Description

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.**



Technical Information



Properties

MSDS
#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: FIREPAK® 1.4S air cargo shipping containers

Product Code A574017

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



S-06-07-31-07

See Product Disclaimer on page 2.

FireLine® 13/60 HMX LS

Technical Information



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		Spools/ Case	Length/ Spool*	
	kg	lbs	kg	lbs	kg	lbs		m	ft
Fiberboard box	4.1	9	3.9	8.5	1.9	4.3	1	152	500

- Weights represent nominal values
- * $\pm 2\%$; 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.

CE0519 ENB/C/021/06

Case Dimensions

26 x 26 x 14 cm 10 ¼ x 10 ¼ x 5 ½ in

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