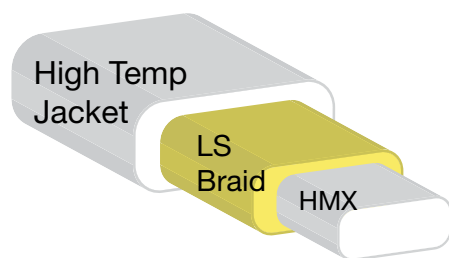


FireLine®

13/60 HMX LS HT/HP RIBBON

Oil Field Detonating Cord

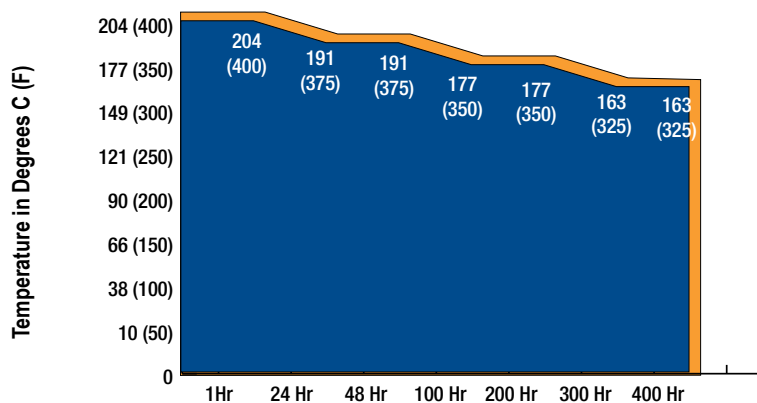


Product Description

FIRELINE 13/60 HMX LS HT/HP RIBBON is a High Temperature/High Pressure (HT/HP) detonating cord specifically developed for encapsulated perforating systems or other “down hole” exposed service systems to be employed in caustic environments. This product utilizes the highest purity HMX explosive feedstock commercially available, “shrinkage resistant” construction, and a special high temperature jacket, allowing exposed use in the presence of well bore fluids, at temperature and pressure. Users must satisfy themselves as to the product’s suitability for an application.

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	7800 m/s (25,584 ft/s) nominal 7100 m/s (23,288 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	A575010
Cord Components	HMX explosive core (white) Shrink resistant braid (yellow/gold) Florro-Copolymer jacket (white)

- **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



S-08-07-31-07

See Product Disclaimer on page 2.

FireLine®

13/60 HMX LS HT/HP RIBBON

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 detonating cords must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.

Application Recommendations

- **ALWAYS** cut FIRELINE 13/60 HMX LS HT/HP RIBBON detonating cord with a sharp knife.
- **NEVER** attempt to cut FIRELINE 13/60 HMX LS HT/HP RIBBON 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 HT/HP RIBBON 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.

NOTE: This product can be used at the temperature detailed in the graph on page 1 and is well suited for use in carrier-based systems. However, this cord does not have the flexibility of the nylon jacketed FIRELINE required by some combination "High Shot Density" systems.

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

* ±2%; 152m spools may contain as many as 3 pieces, totally 152 m, with a minimum splice/piece length of 8 m (25 ft).

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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