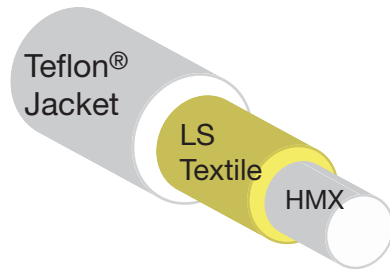


FireLine®

17/80 HMX LS EXPOSED

Oil Field Detonating Cord

Technical
Information

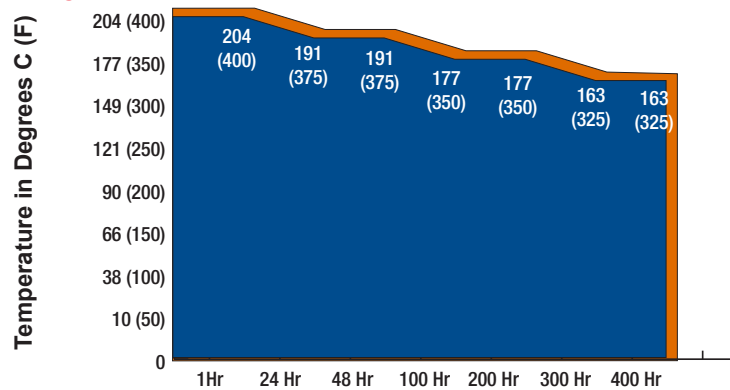


Product Description

FIRELINE 17/80 HMX LS EXPOSED is a flexible High Temperature/High Pressure (HT/HP) cord specifically developed for encapsulated perforating systems, back-off or other “down hole” exposed service systems. It is our best detonating cord for use in caustic environments. The detonating cord utilizes the highest purity HMX explosive feedstock commercially available, “shrinkage resistant” construction and a special high temperature jacket. This jacket allows the cord to be exposed to well bore fluids at temperature and pressure.

Temperature Range

The temperatures listed are maximum values at ambient pressure.
DO NOT EXCEED.



Properties

MSDS
#1121

Explosive Core Load	17 g/m (80 gr/ft) nominal 15.3 g/m (72 gr/ft) minimum
Detonation Velocity	7500 m/s (24,600 ft/s) nominal 7000 m/s (22,960 ft/s) minimum
Shrinkage	1% maximum @ 163°C (325°F) in 24 hrs
Jacket Thickness	0.20 mm (0.008 in) minimum
Dimensions	5.33 mm (0.210 in) nominal ±0.20 mm (0.008 in)
Lap Joint Sensitive	Yes
Product Code	A576010
Cord Components	HMX explosive core (white) Shrink resistant braid (yellow/gold) Teflon® jacket (clear)

- **Temperature/Pressure** rating is 185°C (365°F) at 17,500 psi (1,206 bars) for 1 hour.
- **Temperature resistance** graph 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 II EX 1992020035

Alternative packaging: FIREPAK® 1.4S air cargo shipping containers

Product Code A576017

Articles, Explosive N.O.S., 1.4S UN 0349 II EX 2007060067

Teflon® is a registered trademark of the E. I. Dupont Company.



S-4-06-24-09

See Product Disclaimer on page 2.

FireLine®

17/80 HMX LS EXPOSED

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

- **This product is recommended for exposure to well bore fluids.**
- **ALWAYS** cut FIRELINE 17/80 HMX LS EXPOSED detonating cord with a razor blade.
- **NEVER** attempt to cut FIRELINE 17/80 HMX LS EXPOSED detonating cord with a blow from a sharp or blunt object, such as an axe, pipe wrench, or rock.
- **NEVER** saw FIRELINE 17/80 HMX LS EXPOSED 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 temperatures and pressures detailed on page 1 and is well suited for use in exposed systems. FIRELINE 17/80 HMX LS EXPOSED has a similar flexibility of nylon jacketed FIRELINE required by some “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	5.7	12.5	5.0	10.1	2.6	5.7	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: A576011

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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