



DEFENSE

MILD DETONATING CORDS

Pyroalliance designs and manufactures several types of Mild Detonating Cords with various diameters, sizes, shape connections or cladding.

The Mild Detonating Cord is used to transmit detonating signals. Such signal can be received from another detonating line (via a manifold), a detonator or a Slapper. It is transmitted to a terminal function such as a Through Bulkhead Initiator (TBI) for solid rocket ignition or a cutting cord (for separation or flight termination functions).

More generally, Pyroalliance delivers complete pyrotechnic chains adapted to its customers' needs.

They are designed and manufactured under Pyroalliance design authority.

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Operating mode

Initiated by a slapper or by another detonating cord with a potential relay, the pyrotechnic Mild Detonating Cord receives and transfers the signal to ignite a secondary explosive part of the pyrotechnic chain.

The signal transfer is ensured by a shockwave generated by temperature and pressure. It travels at an extremely high speed (typically several thousand meters per second) thus transmitting a pyrotechnic order to the next component of the pyrotechnic chain. This next component can for instance be a terminal function such as a Through Bulkhead Initiator (TBI) for solid rocket ignition or a cutting cord (for separation or flight termination functions).

The Mild Detonating Cord is a lead free product and can be clad with fiberglass or Kevlar in order to guaranty the tightness of the line while preserving its flexibility.

Benefits

- Flexible and adjustable length for an easy integration
- No leak or external effect
- Mechanical system integrity
- Small Size and Weight
- High reliability level (100% X-Ray control)
- Lead free

Applications

- Pyrotechnic order transmission for :
 - o Missile booster ignition
 - o Missile flight termination

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Typical performances and features

Size	Length from several centimeters up to several meters Diameter the line between 6 to 14 mm M8-M13 mechanical connection standard adaptable according to the interface geometry
Mass	Range of 40g/m
Ignition / end relay	HNS
Ignition system	Detonator Or slapper Or transfer line
Reliability	0.999859 @90% CL
Temperatures	Adapted to typical airborne military climatic environment
Electrostatic Voltage	25 kV
Capacitor	500 pF
Discharge resistor	500Ω and 5000Ω
Life Time	Adapted to the mission and life profile
Standard	STANAG 4370 S-CAT n°17500

Classification

- UN Number: 0384
- Transport classification : 1.4 S with specific packaging
- Not subject to any ITAR constraint

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