

Cordtex™ Pyrocord Detonating Cord



Description

Cordtex™ Pyrocord is a strong, flexible detonating cord with a nominal core charge of 10 g/m PETN. *Cordtex™* Pyrocord was developed for hot material blasting applications in the 55°C to 100°C range. *Cordtex™* Pyrocord consists of a continuous core of PETN powder encased by high strength textiles. This is covered by a seamless plastic jacket. It is designed to maintain stability at hole temperatures up to 100°C.

Safety

Cordtex™ Pyrocord contains explosive which is relatively insensitive to accidental initiation by shock, friction or mechanical impact under normal conditions of use.

Cordtex™ Pyrocord can detonate if subjected to high temperatures, but remains stable and safe to use below 100°C. *Cordtex™* Pyrocord has a heat resistance rating of 8 hours at 100°C. Note: the heat resistance rating is based upon the manufacturer's laboratory tests, in air, at ambient pressure.

For temperatures between 70°C and 100°C, the exposure time of surface trunklines should never exceed 8 hours. Where *Cordtex™* Pyrocord is used in hole, in hot ground, all holes must be temperature logged prior to loading to ensure adequate safety margins. Orica Explosives can assist in the assessment of risk, establish procedures and recommend suitable explosive components. Legislation covering blasting in hot conditions must be followed. *Cordtex™* Pyrocord is supplied in Class 1.1D packaging and has UN Number 0065.

Application

Cordtex™ Pyrocord is suited for use as a surface trunkline, as it will reliably initiate itself through suitable knots and is compatible with *Exel™* Millisecond Connectors (MSCs). Refer to the *Exel™* MSC Technical Data Sheet for application details.

Cordtex™ Pyrocord downlines will reliably initiate *Pentex™* boosters. Consideration must also be given to compatibility of the booster with the in-hole temperature. Refer to the relevant Technical Data Sheet for details. *Cordtex™* Pyrocord will not generally initiate primer-sensitive blasting agents, but in some circumstances desensitisation or side-initiation can occur. Consequently the manufacturer or supplier should be consulted for specific recommendations in each situation.

Technical Properties

Nominal Coreload	10 g/m.
Colour	Yellow
Nominal Tensile Strength	90kgf
Nominal Velocity of Detonation	6.5 to 7.0km/s
Elongation	9 to 13% at 90kgf load
Diameter	4.6mm (Average)

Recommendations For Use

Cordtex™ Pyrocord should only be cut using a single bladed cutter, or a sharp knife on a non-ferrous block. *Cordtex™* Pyrocord can be reliably initiated by an *Exel™* Lead-In-Line, *Exel™* Trunkline Delay or #8 Strength Electric Detonator. The detonators should be firmly attached to the cord, with its base at least 150mm from a dry cut end and pointing in the desired direction of propagation. When using electric detonators, two detonators are recommended for reliability.

Cordtex™ Pyrocord can be reliably initiated by detonating cords of 5g/m or greater core charge when approved connections are used. For extending surface trunklines, cord should be tied together with a "reef" knot (Figure 1). The knot should be 150mm from each cut end and pulled tight, with the free ends taped back along the cord to ensure positive contact.

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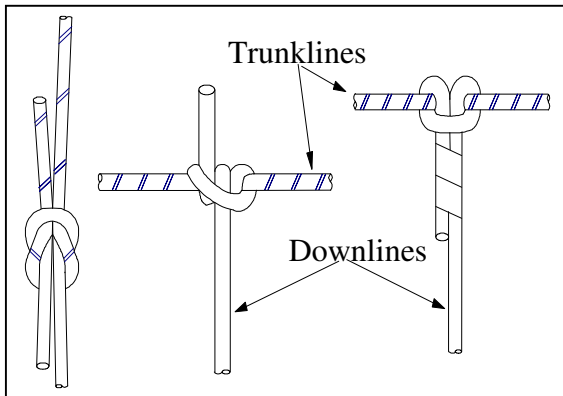


Figure 1: Approved knots, from left to right: Reef knot, Double wrap clove hitch Double half hitch

For attaching downlines and branchlines to a surface trunkline, connections should be made using a double wrap clove hitch. All connections should be tight and made at right angles, to minimise the chance of "approach"-type cutoff failures.

Cordtex™ Pyrocord surface trunklines should be laid out with no loops, kinks, tight bends or excessive slack. A closed loop of cord is recommended to provide insurance against poor connections. Cordtex™ Pyrocord should never be pulled off the reel over an end flange, as this can cause kinks.

Downlines should be kept taut to prevent the formation of kinks or loops, which could lead to a misfire. Downlines must be continuous lengths of cord and should never incorporate knots, lap joins or delay connectors inside a blasthole.

Packaging

Cordtex™ Pyrocord detonating cord is supplied on chipboard spools, which hold 350 metres of product. A standard cardboard outer case contains 2 of these spools, measures 500 mm x 250mm x 250mm and weighs approximately 16.5kg. The weight of contained explosive material is 7.0kg per case.

Storage And Handling

Cordtex™ Pyrocord should be stored with other high explosives in a cool, dry, well-ventilated magazine licensed for Class 1.1D products. Cordtex™ Pyrocord has a maximum shelf life of 5 years when stored correctly.

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Orica Mining Services
1 Nicholson Street
Melbourne, VIC 3000

Emergency Telephone Numbers

Within Australia: 1800 033 111
Outside Australia: 61 3 9663 2130