SOLAR

Safety • Quality • Reliability

Technical Data Sheet

Solar Cord

Detonating Cord

Description & Application

Solar Cord comprises an explosive core of PETN encapsulated in a tape winded with a natural or synthetic fibres and finally coated with plastic which makes the product strong, flexible and waterproof.

It provides quick, safe and convenient means of simultaneously initiating any number of independent or inter-related charges.

Solar Cord is available with a variety of PETN charge weights designed for different applications.

Solar Cord can be initiated by a No. 6 or No. 8 plain detonator, electric or nonelectric detonator.

Solar Cord with PETN core loads of 10 g/m is most frequently used as downlines in blast-holes either for directly initiating charges or detonator sensitive NG explosives, watergels and emulsions or indirectly initiating columns and decks of detonator insensitive ANFO and non-cap sensitive watergels and emulsions by means of special primers or boosters.

Advantages

Solar Cord is a high explosive that must be handled with care and respect at all times. Except for a direct lightning strike, SOLAR CORD detonating cord is unaffected by stray currents generated by electrical storms, power lines and radio/radar transmitters which make electric firing comparatively hazardous. Intense impact or friction can initiate SOLAR CORD, but is insensitive to initiation during normal handling.

Solar Cord can detonate if subjected to extremely high temperature, but remains stable and safe to use below 70°C. For temperatures between 70°C and 80°C exposure time should not exceed 24 hours.

Solar Cord is an explosives and should therefore be stored in magazines and transported/handled with appropriate care and respect.

Technical Properties

Product	PETN Charge	DIA mm	Colour	Tensile (Kgs)
Solar Cord A	5g	4.1 +/- 0.1	Yellow	60
Solar Cord I	6g	4.2 +/- 0.1	White	60
Solar Cord T	8g	4.5 +/- 0.1	Red	50
Solar Cord II	10g	4.8 +/- 0.1	Red	70
Solar Cord III	12g	5.2 +/- 0.1	Blue	70
Solar Cord IV	20g	6.0 +/- 0.2	Orange	70
Solar Cord V	40g	6.0 +/- 0.2	Green	90
Solar Cord VI	80g	11.2 +/- 0.2	Green	90

Note

Velocity of Detonation 6500 – 7500 Mtr / Sec
Initiation by No. 6 Detonator.

Recommendations for Use

- Solar Cord downlines must be continuous lengths of cord and must never incorporate knots splices inside a blasthole.
- Solar Cord should be cut using either an anvil type tool or a sharp knife. Cutting devices, which have a shearing action (e.g. scissors), must not be used to cut detonating cords.
- Solar Cord can be attached to a cartridge of high explosives by simply tying the cord securely around the cartridge. When using SOLARCAST Primers.
- Solar Cord is threaded through the hole provided permitting a simple, secure way of attachment.
- A strand of most Solar Cord can be initiated by the detonation of an adjacent strand having a PETN core load of 5 gm/m or greater, provided that the two strands are effectively connected by a suitable knot.

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- When connecting Detonating Cord lines, pull all knots up tightly so that the two lines are in positive contact, and trim the tail ends of the knots off short to prevent them from crossing the trunklines or downlines and causing cut-offs. Keep each connection at right angle as possible to prevent possible cut-off failure that can occur where the downline makes an acute angle back towards the point of initiation of the trunkline. Trunklines can be initiated by an Electric Detonator, a Non Electric Detonator or by a plain detonator crimped with safety fuse. The base end of the detonator is taped to the cord must point in the direction that the detonating cord is required to detonate.

Packaging

Product	Reel Length (Meters)	Reel / Case
Solar Cord A	300	4
Solar Cord I	300	4
Solar Cord T	375	4
Solar Cord II	375	4
Solar Cord II	250	4
Solar Cord III	250	4
Solar Cord IV	125	4
Solar Cord V	75	4
Solar Cord VI	50	4
Solar Cord VI	40	4

- Joint Free Detonating Cord available on special request.
- Normally, Maximum Joints / Reel are 3 and indicated on the reels.
- Colour of Detonating Cord can also be changed as per request.

Storage

Store SOLAR CORD in a suitably licensed magazine for Class 1.1D Explosives.

Shipping Information :

Authorised Name of Explosive	: Solar Cord
Proper Shipping Name	: CORD DETONATING, FLEXIBLE
Class / Div.	: 1.1D
UN No.	: 0065

All regulations pertaining to the handling and Use of such explosives should apply.

Disclaimer

Use of these products by anyone who lacks adequate training, experience & supervision may kill or injure. It is expressly understood that any technical advice furnished by SIIL with reference to the use of its Products is given gratis & SIIL assumes no obligation or liability for the advice given or results obtained, & all such advice being given is accepted at Customer's risk.

SIIL makes no warranty of any kind, written or oral, express or implied, except that the Products shall meet SIIL's standard specifications for such Products. Customer shall assume all risk and liability for results obtained by the use of such Products whether used singly or in combination with other products. Under no circumstances shall SIIL or any of its subsidiaries be liable for special, consequential or incidental damages or for anticipated loss of profits.

Any dispute arising out of above information shall be dealt in accordance with the laws of Republic of India and subject to jurisdiction of Courts at Nagpur, India.

*Images are just for reference and can be changed without any intimations.

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