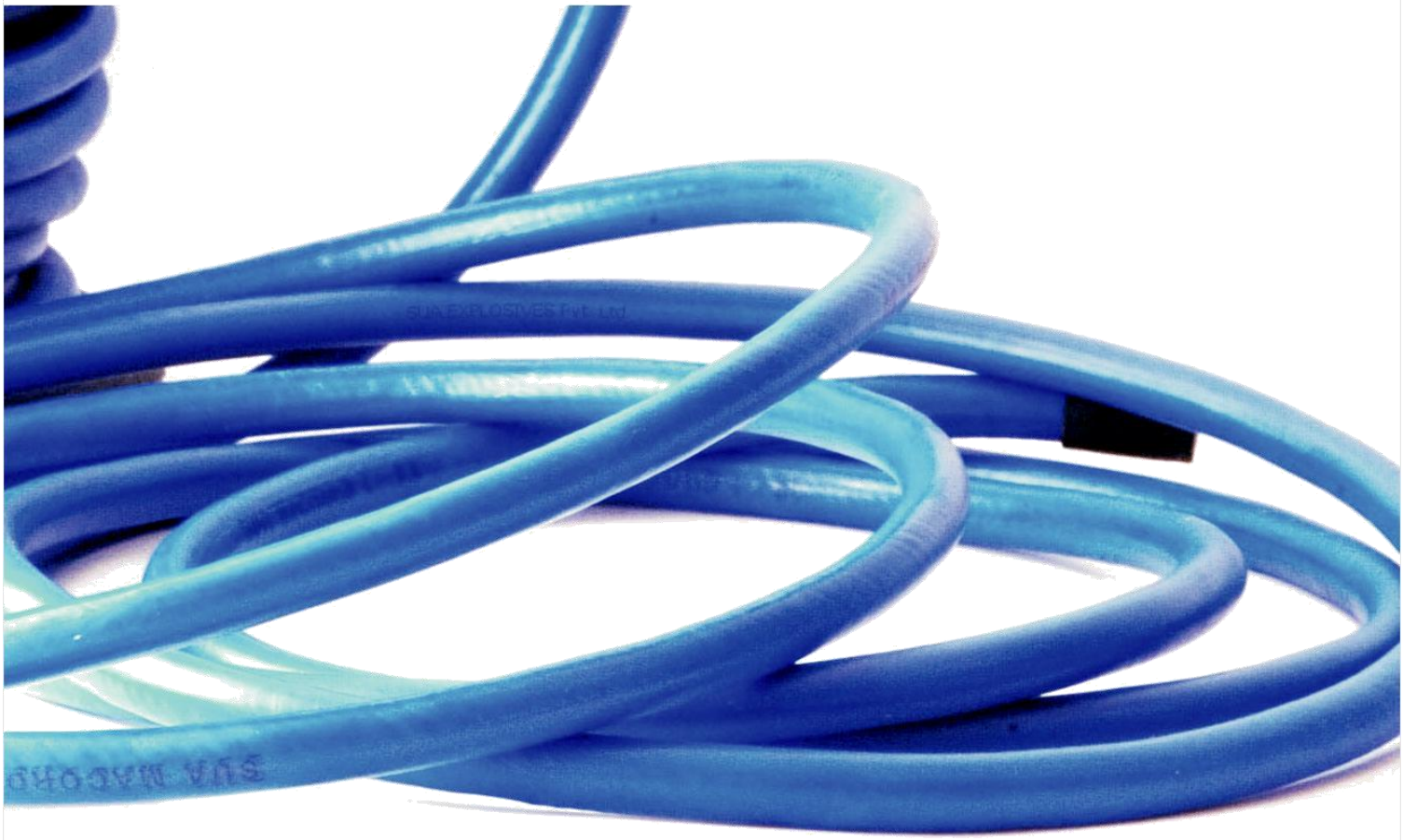
SUA Explosives & Accessories Pvt Ltd

Product Catalogue



PETN – Penta Erythritol Tetra Nitrate

Penta Erythritol Tetra Nitrate generally known as PETN/Penthrite/ Nitropenta is a standard explosive compound obtained by nitration of Penta Erythritol with Concentrated Nitric Acid. It is in the form of white crystalline powder insoluble in water and highly soluble in Acetone. It finds its use in the manufacture of Detonating Cords as main core material, in the Pentolite Booster as a sensitizing charge, in the detonators as a base charge etc.

Macord-1 Detonating Cords

Macord-I Detonating Cords used primarily for initiating commercial explosives. It is a flexible cord with a core containing PETN and explosives. When MACORD-I is initiated with a blasting cap, it detonates along its entire length at a velocity of 6300-7500 metres/sec (20,665-24,600 feet/sec) depending on the charge weight of its explosive core.

The center of MACORD-I includes the explosives PETN encapsulated in a polypropylene tape, and fibrillated polypropylene yarn countering. The protective covering over the countering yarn enables MACORD-I to withstand varied conditions encountered in the field while using commercial explosives. Such construction makes the product user friendly. It also provides qualities required to meet physical conditions viz., tensile strength, flexibility, resistance to abrasion and extremes of heat and cold, water and oil penetration

	Core Load	Tensile Strength	Outer Diameter	Color and Identification	Uses
MACORD I 3.6 gms per meter	3.6 gms / mtr (18 gms /ft.)	50 kgs (110 lbs)	3.500 mm (0.137 inches)	White cord	Trunk line, Down line
MACORD I 5 gms per meter	5 gms / mtr (25 gms /ft.)	50 kgs (110 lbs)	3.600 mm (0.142 inches)	White cord	Trunk line, Down line
MACORD I Granite	7.5 gms / mtr (37.5 gms /ft.)	50 kgs (110 lbs)	4.200 mm (0.165 inches)	Blue cord	Down line to initiate a cast booster, cap sensitive explosives, Trunk line
MACORD I 10 gms per meter	10 gms / mtr (50 gms /ft.)	50 kgs (110 lbs)	4.400 mm (0.174 inches)	Blue cord	Down line to initiate a cast booster, cap sensitive explosives, Trunk line
MACORD I 12 gms per meter	12 gms / mtr (60 gms /ft.)	60 kgs (132 lbs)	4.900 mm (0.193 inches)	Red cord	Down line to initiate a cast booster, cap sensitive explosives, Trunk line
MACORD I 20 gms per meter	20 gms / mtr (100 gms /ft.)	60 kgs (132 lbs)	6.000 mm (0.236 inches)	Blue cord	Down line & Seismic applications
MACORD I 40 gms per meter	40 gms / mtr (200 gms /ft.)	70 kgs (154.3 lbs)	8.000 mm (0.315 inches)	Blue cord	Seismic pre splitting blast, Perimeter blasting
MACORD I 80 gms per meter	80 gms / mtr (400 gms /ft.)	70 kgs (154.3 lbs)	11.000 mm (0.433 inches)	Blue cord	Seismic pre splitting blast, Perimeter blasting

Do's and Don't of Detonating Cords

- Always cut the Detonating cord with a sharp knife. Never attempt to cut the cord with a blow from a hard object such as a spade, axe and stone. The core of the explosive inside the cord is sensitive to impact and friction and it may explode when struck between two hard surfaces.
- Un-detonated pieces of cord should not be discarded to thrown away. They should be destroyed by detonation.
- Do not misuse a cord to tie up packing cartons, tolls or leave the cord lengths lying among other objects. Keep in mind that a cord is explosive and should be treated with due care.
- Ensure that all knots and joints between detonators, relays and cord, trunk lines and down lines are pulled tight and in proper contact with each other.
- Ensure that they are no loops, kinks and severe bends in the cord which can cause core-gaps and lead to misfires.
- While securing the detonator to a detonating cord, ensure that the "business end" of the detonator is in proper contact with the cord.
- All joints should be at wide angles. Acute angles can cause "Angle Failure" and lead to cut-offs.
- Ensure that trunk lines and down lines do not cross-over each other. Cut the cord from the spool immediately after the appropriate amount has been unreeled. This is to ensure that any accidental explosion does not get propagated to other points.
- For large blasts, it is recommended that trunk lines are "closed" to ensure that there are at least two paths for a detonation wave to reach each hole. This will eliminate chances of misfires due to cut offs, fly rock, ground movement etc. The same principle is extended for delay blasting also.

Macpentolite Cast Booster

Macpentolite is a cap-sensitive cast booster having high detonation pressure. In conjunction with detonating cord or detonator No.6 upward, Macpentolite is an excellent choice as a low cost, high energy priming system.

Macpentolite Booster is designed to bring out optimum VOD of explosives and full release of explosive energy. It can be initiated by MACORD-I (3.6gm/m), MACORD-I (5gm/m), MACORD-I (Granite), MACORD-I (10gm/m) and all standard 10gm/m core load Detonating Cord or Detonator No. 6 upward. The explosive core is a mix of high velocity explosives PETN (Penta Erythritol Tetra Nitrate) and TNT (Tri Nitro Toluene).

Density	Velocity of Detontion	Use	Water Resistance	Application
1.5	6,500 – 7,500 mtrs per sec	Primer	Excellent	Reliable priming system for ANFO, Heavy ANFO, packaged & bulk emulsion & slurry explosives

Sizes available in 100gms, 250gms, 400gms & 500gms.

Sua Boost - Emulsion Based Booster

Sua Boost is a emulsion based booster, unlike Macpentolite cast booster which is a mix of PETN and TNT. Sua Boost is capable of initiating column charge, compatible with 5 gms, 10gms Detonating cord and Nonel Detonators. The Sua Boost plastic shell is well designed with two holes to accommodate Detonator as well as Detonating cord in it. Sua Boost is a high energy booster with a VOD of 6,000 +/- 500 mtrs /sec. It has a shelf life of "over one year". It is easy and safe to handle in booster priming operations, bulk emulsion boosting operations and in all types of opencast mines.

Density	Velocity of Detontion	Use	Water Resistance	Application
1.45 min.	6,000 mtrs + /-500 mtrs per sec.	Primer	Excellent	Reliable priming system for ANFO, Heavy ANFO, packaged & bulk emulsion & slurry explosives

Cartridge Slurry Explosives

Cartridge Slurry Explosives Macwinex/Cenex range of Explosives are Slurry based and offer total safety in open cast mining operations. Macwinex/Cenex Slurry Explosives are available in three varying strengths viz., Nominal, Medium and High. They also come in various cartridge sizes ranging from 83mm to 200mm. Macwinex/Cenex range includes Cap Sensitive and Non-Cap Sensitive Products. They can be effectively used for all open cast mining operations for coal and minerals like limestone, iron, copper etc.

Bulk Emulsion Explosive

In addition to packaged explosives SEAPL offers bulk delivery system for mechanized charging of plant mixed emulsion premix, for open cast mines. Bulk emulsion explosives are produced in a modern plant using state-of-the-art technology.

SEAPL's bulk delivery systems are technologically the best and can be loaded with multiple products. SEAPL offers a range of straight and doped emulsion products with down-the-hole loading arrangements for even deep bore holes. The products are customized for specific mining conditions greater reliability and consistent performance.

GASBAGS

Is a recent innovation in the field of Blasting Technology being used worldwide using AIR DECKING Technology with Gas Bags. Due to its simplicity, technical and financial benefits, Air Decking using Gas Bags has become extremely popular in several countries viz., USA, South Africa, Chile, Australia and India. This concept has been introduced and patented by Bos Technologies (India) Pvt. Ltd., a fully owned subsidiary of Sua Explosives & Accessories Private Limited, and the product is being successfully marketed by Sua Explosives & Accessories Private Limited.

Usage and Benefits of gasbags

BOSTECH Gasbag is self inflating bags with an aerosol can inside containing gas for inflating the bag. The gasbag can be activated by depressing the trigger at the top of the aerosol can. When the trigger is locked down, it releases the gas from the aerosol can into the bag and inflates it to the right pressure to get the bag locked inside the borehole.

Gasbags are used by many mining operations worldwide as a general purpose, low cost tool which improves blasting results.

1. Reduction in explosives by 15% to 40%.
2. Simple technique for pre splitting, giving safer high walls and reduced vibration propagation.
3. Reduces face bursting and back break.
4. Improves fragmentation through better distribution of explosives.
5. Can seals off water at the bottom of the bore hole, enabling ANFO to be used instead of slurries / emulsions.
6. Can be used for controlled blasting where charge per hole is severely restricted.
7. Reduces fines and improves production of lumps in coal blasting.
8. Stops explosive wastage in fissures and voids where SMS / Bulk explosives are used.