

Pentolite Booster

Explosives Division of GULF OIL Corporation Limited manufactures **Pentolite Booster**, a high energy cast booster. The explosive is filled in specially designed plastic containers having a cap-well for priming detonator and a cord tunnel for priming with detonating cord. The cord tunnel is continuous, while the cap-well has a step at the top side of the booster to prevent the detonator from passing through. A recessed groove at the base of the booster offers protection to the lead wire or shocktube of the detonator.

Pentolite Booster can be initiated with No.6 strength detonator or detonating cord having an explosive core of 10 grams/meter. However, use of No. 8 strength detonator is recommended for reliable initiation of the booster.

Pentolite Booster consists of a mixture of Penta Erithrytol Tetra Nitrate (PETN) and Tri Nitro Toluene (TNT) in the ratio 50:50. The two ingredients in a molten condition are poured into the specially designed plastic containers and allowed to solidify.

Pentolite Booster can be used for initiating booster-sensitive explosive in the drillholes in all surface mines, quarries, civil construction, and in underground metal mines for ring blasting, largehole stoping and vertical crater retreat (VCR) blasting applications.

Advantages

- Very efficient primer for booster-sensitive explosives in view of its high density and high velocity of detonation, resulting in high detonation pressure.
- Stable, and can be kept for long periods of time when stored under recommended conditions.
- Has excellent water resistance, as its ingredients are insoluble in water.
- Does not get affected by hydrostatic heads normally encountered in mining conditions.

Priming Procedure

Priming with electric and shock tube based non-electric detonator

1. Insert the detonator into the cord tunnel from the top, pass it through and pull it out of the other end.

2. Insert the detonator into the cap-well and gently push it till the stepped end, so that detonator is snugly placed inside the booster (as shown in photo).

3. Alternately, insert the detonator gently into the cap-well and push it till the end so that it is snugly placed inside the booster. Without leaving any slack, fold back the lead wire or shock tube so that it lies along the side of the booster casing. Firmly tape the lead wire or shock tube to the booster.

4. Lower the assembly into the drillhole.

Priming with detonating cord

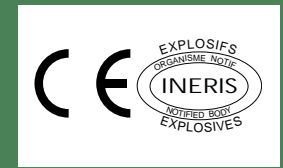
1. Pass the free end of the detonating cord through the cord tunnel and pull it out from the other end.

2. Tie the free end of the detonating cord into a knot so that it prevents the booster from sliding through and rests on the knot (as shown in photo).

3. Alternately, pass the detonating cord through the cap-well and back through the cord tunnel. Tie a knot so that the cord forms a loop through the booster.

4. Lower the assembly into the drillhole.

5. Where additional boosters are to be loaded, thread the detonating cord through the cord tunnel and allow it to slide down along the cord by gravity.



Contact Information

For more information, please contact:



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Features and specifications mentioned in this brochure are subject to change due to continuous improvements through research and development.

Specifications

Density:	1.58 ± 0.02 g/cc
Velocity of Detonation:	6750 ± 250 m/sec
Detonation Pressure:	240 kilo bar

Weight and Dimensions

Weight (grams)	Diameter (mm)	Height (mm)
100	35	98
175	45	90
250	50	110
400	60	122

Packaging

Pentolite Boosters are packed in corrugated fiber board cases. Markings on the case indicate manufacturer's name, product name, booster weight, case number, date of manufacture, net weight and gross weight.

Booster Weight (grams)	Quantity per case (nos.)	Total Weight (kg)
100	200	20
175	100	17.5
250	100	25
400	50	20



Precautions

- Do NOT subject explosives and detonators to impact, friction or fire.
- NEVER force a detonator into the explosive.
- Do NOT attempt to scrape the explosive material or attempt to enlarge the cap-well or cord tunnel for accommodating detonator.
- Not recommended for use in hot drillholes beyond 80° C.
- Never carry out charging of explosives during an approaching storm and lightning activity in the blast area. Vacate the blast area and resume operations only after the storm has passed.
- Do NOT attempt to fight explosive fires.

Statutory Classification and Shipping Information

Petroleum & Explosives Safety Organization (PESO), Government of India

Class 3
Division 2

IMDG Classification:

Class	1
Division	1.1
Group	D
U.N Number	0042
Page Number	1227
Stowage Category	I

CE (Conformité Européenne) Mark is approved for the following Pentolite Booster products:

- 175 grams
- 250 grams
- 400 grams

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IDL
Explosives

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