



# SBL ENERGY LIMITED



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# COMPANY PROFILE



SBL ENERGY LIMITED is an acclaimed company that incorporated in the year 2002 with the purpose of manufacturing industrial explosives and accessories. The factory is spread over 225 acres of land and is located 45 kms from Nagpur at Village – Yenerva, Tahsil Katol , District , Nagpur in state of Maharashtra, India. The production units are very modern and are set up initially in technical collaboration with Central Mining Research Institute (CMRI) Dhanbad , a Government of India body under Council of Scientific and Industrial Research (CSIR).



We cater the requirement to Public Sector Units (PSUs), Government organizations, Organized sector, Unorganized sectors, Mining Contractors, Explosive Dealers associated with Construction sectors, Water development agencies, Departments, Oil prospecting organization , Coal/ Metal underground and Opencast mines, Tunneling, Road construction works etc. We are able to cater to our clients with our extensive assortment

of products: LARGE DIAMETER EXPLOSIVES, SMALL DIAMETER EXPLOSIVES, DETONATING FUSE, PETN, DETONATORS, BULK EMULSION EXPLOSIVES, CAST BOOSTERS developed over the years of experience in the industry.

Some of our major clients are Coal India Limited, Hindustan Copper Limited, Aditya Birla Group, Ultratech Cement, Steel Authority of India Limited, Manganese Ore India Limited.

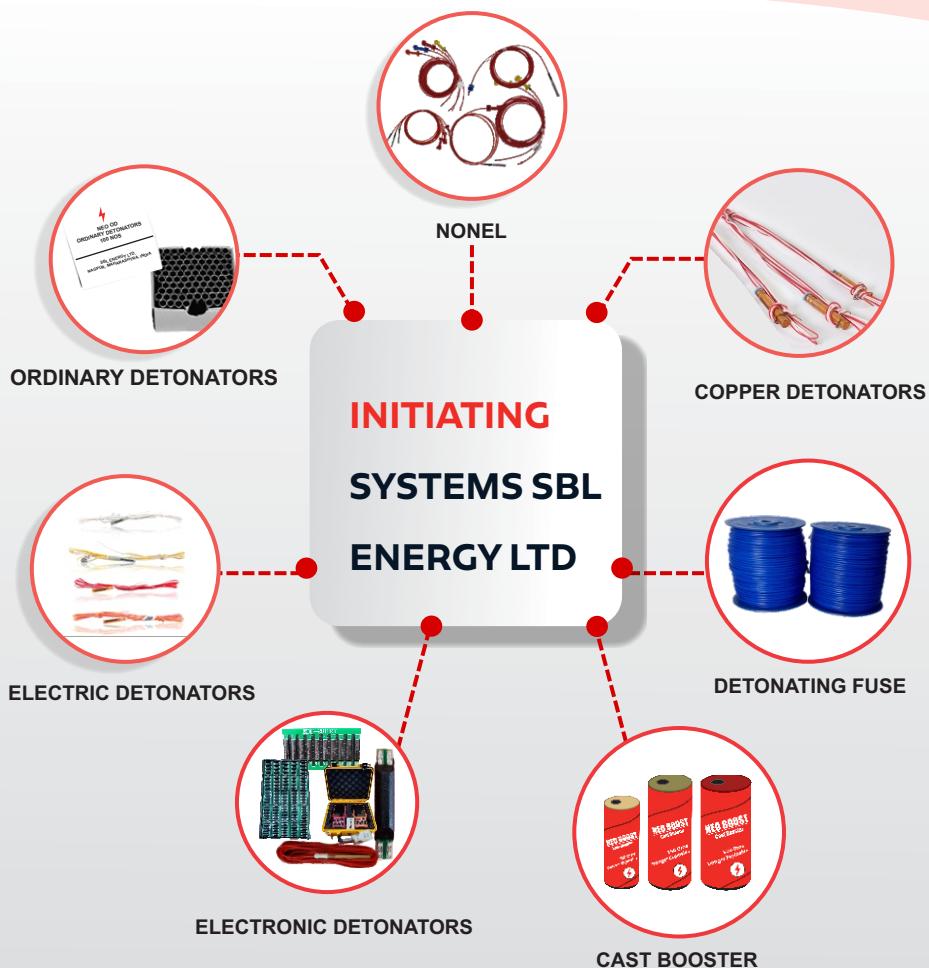
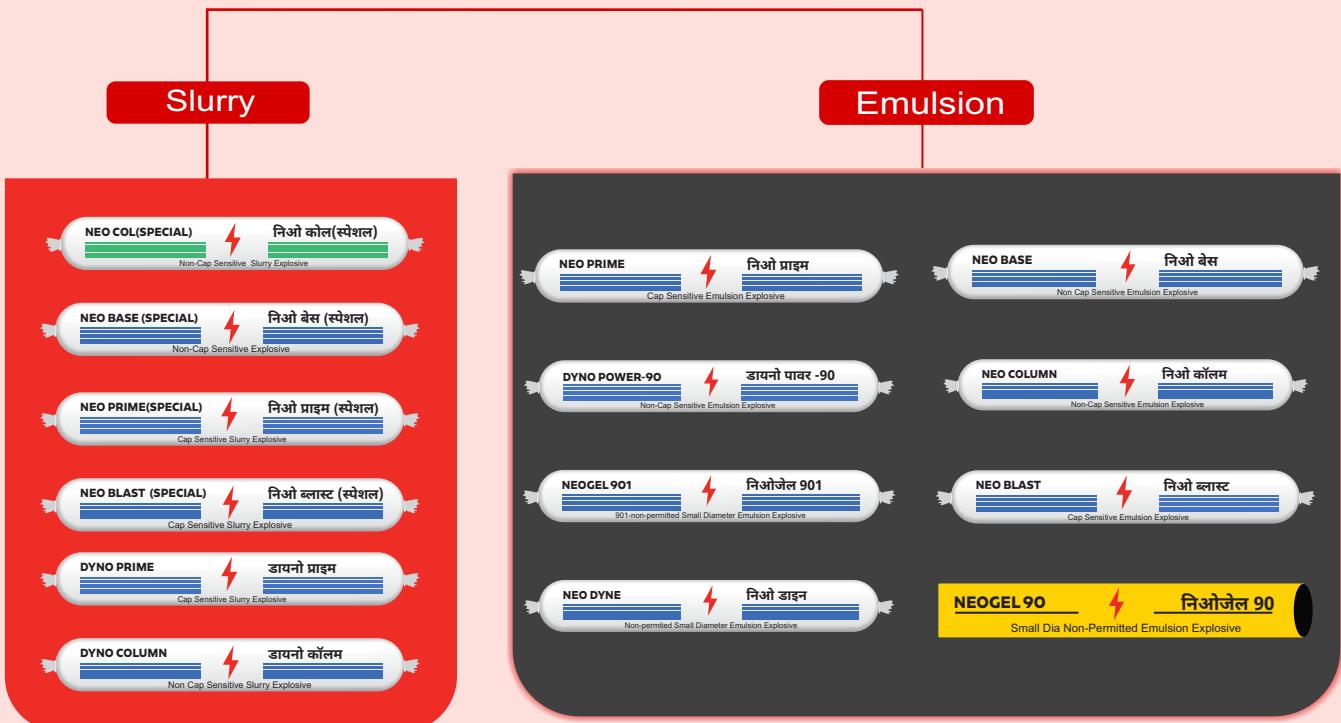


The company comprises qualified mining engineers and chemical engineers for manufacturing Industrial explosives and providing technical services. We have well equipped R&D laboratories for testing and quality control of all Raw Materials, Finished goods and Development of new products. Each production unit in the factory works independently under the direction & supervision of its own managerial staff. All units have modern good quality imported machines and well-trained employees.

The explosives and initiating systems manufactured by our company are widely accepted in mining industry , quarrying, tunneling, road construction and Infrastructure projects. Competent leadership has helped SBL ENERGY to create a prominent position for itself in market.

# PACKAGED EXPLOSIVES

## SBL ENERGY LTD





**SEISMIC**

NEO GEL - 90 CPT  
Seismic Explosive

SBL ENERGY LTD  
NAGPUR, MAHARASHTRA,  
INDIA

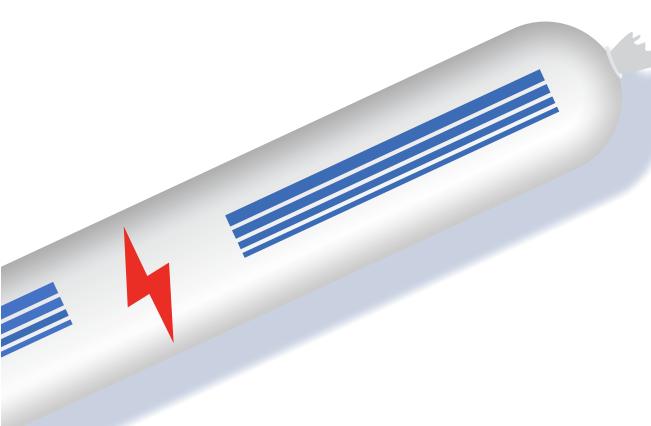
## BULK EMULSION EXPLOSIVE



**SBL ENERGY**  
LIMITED

# PACKAGED SLURRY EXPLOSIVES

Slurry Explosives or Water gel explosives are known as 3rd generation of commercial explosives that has taken over traditional explosives like ANFO & Gun Powder. Slurry explosive is a mixture of ammonium nitrate or other nitrates and fuel sensitizers which can either be a hydrocarbon or hydrocarbons and aluminum. Slurries are made water-resistant through the use of gum, waxes, cross linking agents or emulsifiers



We offer an extensive product range of Cartridge slurry explosives with changeable physical and detonation factors, based on the different types of strata to be mined.

## ADVANTAGES

- Excellent Water resistance
- Cost efficient, easy to use and safe
- They provide high degree of safety from Mechanical Impact friction
- They have exceptional bore hole coupling and transfer maximum energy
- Density of slurry explosives can be controlled

## PRECAUTIONS

- Should be kept away from flame & excessive heat
- Should be handled with care and stored in a cool and dry place.
- Do not subject product to heavy impact or friction
- During charging ensure that cartridges are charged in a continuous column in the bore hole.

# CAP SENSITIVE SLURRY CARTRIDGE EXPLOSIVES (Booster/Primer Charges)

SHIPPING NAME EXPLOSIVE		Class /DIV. : I.I D			UN NO : 241			
AUTHORISED NAME OF PRODUCT	PESO BRAND ID	Diameter	Weight	No of Cartridges in a box	Nominal Density	Velocity of Detonation	Relative Weight Strength*	Relative Bulk Strength*
		mm	grams		gm/cc	mtr/second		
NEO PRIME SPECIAL	625	83	1000	25	1.18 ± 0.05	4000 ± 400	90%	124%
		83	2780	9				
		125	6250	4				
		200	12500	2				
NEO BLAST SPECIAL	627	83	2780	9	1.15 ± 0.05	3800 ± 400	88%	120%
		125	6250	4				
		200	12500	2				

REE is the effective energy relative to ANFO at a density of 0.85 g/cc .  
Energies based on ideal detonation calculation.

VOD of explosive depends on density, Hole diameter and degree of confinement.  
VOD quoted is unconfined condition.

APPLICATION	<ul style="list-style-type: none"> <li>Suitable for Deep /Long hole Blasting In Opencast mines, quarrying, hill cutting good fragmentation (Excellent Water Resistance)</li> <li>Can be used for plaster shooting/secondary blasting</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Initiation with Detonator of No 8 Strength and Detonating Cord</li> <li>Air gap Sensitivity 2 centimetres</li> </ul>
PACKAGING	<ul style="list-style-type: none"> <li>Cartridges are packed in HDPE/LDPE film and further packed in 25 kgs corrugated boxes</li> </ul>



# NON CAP SENSITIVE SLURRY CARTRIDGE EXPLOSIVES (Column Charges)

SHIPPING NAME EXPLOSIVE		Class /DIV. : 1.1 D			UN NO : 241			
AUTHORISED NAME OF PRODUCT	PESO BRAND ID	Diameter	Weight	No of Cartridges in a box	Nominal Density	Velocity of Detonation	Relative Weight Strength *	Relative Bulk Strength *
		mm	grams		gm/cc	mtr/second		
NEO BASE - SPECIAL	629	83	2780	9	1.18 ± 0.05	4000 ± 400	75%	105%
		125	6250	4				
		200	12,500	2				
NEO COL (SPECIAL)	623	83	2780	9	1.15 ± 0.05	3800 ± 400	73%	100%
		125	6250	4				
		200	12,500	2				

REE is the effective energy relative to ANFO at a density of 0.85 g/cc .  
Energies based on ideal detonation calculation.

VOD of explosive depends on density, Hole diameter and degree of confinement.  
VOD quoted is unconfined condition.

APPLICATION	<ul style="list-style-type: none"> <li>Suitable for Deep /Long hole Blasting In Opencast mines, quarrying, hill cutting as a Column Charge with Excellent Water Resistance</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Non Cap Sensitive /non aluminized explosive has to be used with Cap Sensitive explosive / Booster Charge</li> <li>Air gap Sensitivity 2 centimetres minimum ( unconfined)</li> </ul>
PACKAGING	<ul style="list-style-type: none"> <li>Cartridges are packed in HDPE/LDPE film and further packed in 25 kgs corrugated boxes</li> </ul>



# **PACKAGED EMULSION EXPLOSIVES**

**Emulsion** is the most recent discovery in Industrial explosives industry & is extensively used for commercial blasting all over the world since they are more efficient, more safe & deliver better performance than slurries/water gels. There has been a significant rise in the usage of emulsion explosives due to greater advantages as compared to other explosives.

## **SAFETY**

The emulsion is stable and does not explode in the standard striking tests or while burning, however, it can explode if it is in contact with materials such as detonators, dynamites or aluminum powder.

## **ADVANTAGES**

- Highly safe in manufacturing, transporting, storage and handling: The emulsion is classified as an oxidizer.
- Excellent resistance to water
- High velocity of detonation & Weight strength
- Savings in drilling operations
- Low sensitivity to heat
- High viscosity and rigidity

SBL ENERGY offers complete range of Emulsion package Explosives. The product can be produced in both bulk and packaged forms depending on the application. Emulsions are widely used for both underground and surface mining.



# CAP SENSITIVE EMULSION LARGE DIAMETER CARTRIDGE EXPLOSIVES (Booster/Primer Charge)

SHIPPING NAME EXPLOSIVE		Class /DIV. : 1.1 D			UN NO : 241			
AUTHORISED NAME OF PRODUCT	PESO BRAND ID	Diameter	Weight	No of Cartridges in a box	Nominal Density	Velocity of Detonation	Relative Weight Strength *	Relative Bulk Strength *
		mm	grams		gm/cc	mtr/second		
NEO PRIME	620	65	1250	20	1.2 ± 0.05	4200 ± 500	118%	166%
		83	1000	25				
		83	2780	9				
		125	6250	4				
		200	12500	2				
NEO BLAST	626	83	2780	9	1.2 ± 0.05	4200 ± 500	120%	169%
		125	6250	4				
		200	12500	2				

REE is the effective energy relative to ANFO at a density of 0.85 g/cc . Energies based on ideal detonation calculation.

VOD of explosive depends on density, Hole diameter and degree of confinement.

VOD quoted is unconfined condition.

APPLICATION	<ul style="list-style-type: none"> <li>Suitable for Deep /Long hole Blasting In Opencast mines, quarrying, hill cutting good fragmentation (Excellent Water Resistance)</li> <li>Can be used for plaster shooting/secondary blasting</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Initiation with Detonator of No 8 Strength and Detonating Cord</li> <li>Air gap Sensitivity 2 centimetres</li> </ul>
PACKAGING	<ul style="list-style-type: none"> <li>Cartridges are packed in HDPE/LDPE film and further packed in 25 kgs corrugated boxes</li> </ul>



# BOOSTER SENSITIVE EMULSION LARGE DIAMETER CARTRIDGE EXPLOSIVES

SHIPPING NAME EXPLOSIVE		Class /DIV. : 1.1 D			UN NO : 241			
AUTHORISED NAME OF PRODUCT	PESO BRAND ID	Diameter	Weight	No of Cartridges in a box	Nominal Density	Velocity of Detonation	Relative Weight Strength *	Relative Bulk Strength *
		mm	grams		gm/cc	mtr/second		
NEO COLUMN	621	83	2780	9	1.2 ± 0.05	3900 ± 300	78%	110%
		125	6250	4				
		200	12,500	2				
NEO BASE	628	83	2780	9	1.2 ± 0.05	4000 ± 300	80%	115%
		125	6250	4				
		200	12,500	2				

REE is the effective energy relative to ANFO at a density of 0.85 g/cc .  
Energies based on ideal detonation calculation.

VOD of explosive depends on density, Hole diameter and degree of confinement.  
VOD quoted is unconfined condition.

APPLICATION	<ul style="list-style-type: none"> <li>Suitable for Deep /Long hole Blasting In Opencast mines, quarrying, hill cutting as a Column Charge (Excellent Water Resistance)</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Non Cap Sensitive /non aluminized explosive has to be used with Cap Sensitive explosive / Booster Charge</li> <li>Air gap Sensitivity 2 centimetres minimum ( unconfined)</li> </ul>
PACKAGING	<ul style="list-style-type: none"> <li>Cartridges are packed in HDPE/LDPE film and further packed in 25 kgs corrugated boxes</li> </ul>



# CAP SENSITIVE EMULSION SMALL DIAMETER CARTRIDGE EXPLOSIVES

AUTHORISED NAME OF PRODUCT	PESO BRAND ID	Diameter	Weight	No of Cartridges in a box	Nominal Density	Velocity of Detonation	Relative Weight Strength *	Relative Bulk Strength *
		mm	grams		gm/cc	mtr/second		
NEO GEL 901	918	25	125	200	1.20 ± 0.05	4400 ± 200	119%	168%
		32	200	125				
		40	400	62				
		50	625	40				
NEO GEL 90	622	25	125	200	1.20 ± 0.05	4400 ± 200	119%	168%
NEO DYNE	227	25	125	200	1.18 ± 0.05	4300 ± 200	110%	115%
		32	200	125				
		40	400	62				
		50	625	40				

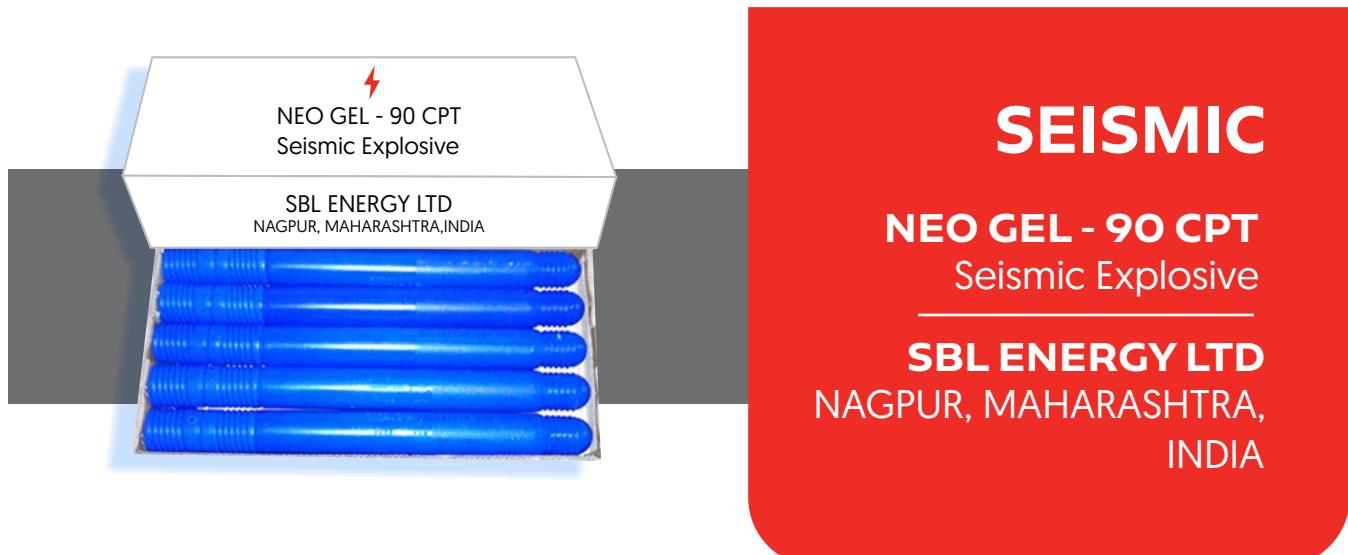
APPLICATION	<ul style="list-style-type: none"> <li>For use in opencast as well as underground metal mines, quarrying , well sinking , shaft sinking ,tunnelling work. (Excellent Water Resistance)</li> <li>Can be used for plaster shooting/secondary blasting</li> </ul>
ADVANTAGES	<ul style="list-style-type: none"> <li>High density explosive works well in watery holes.</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Products are High Strength , Non Permitted Emulsion explosives</li> </ul>



# SEISMIC EMULSION EXPLOSIVE

SHIPPING NAME : EXPLOSIVE		Class /DIV. : 1.1 D				UN NO : 241	
AUTHORISED NAME OF PRODUCT	PESO BRAND ID	Diameter	Weight	No of Cartridges in a box	Nominal Density	Velocity of Detonation	Hydrostatic Head
		mm	grams		gm/cc	mtr/second	
NEO GEL - 90 CPT	915	50	500	50	$1.20 \pm 0.05$	5000	58
		50	1000	25			
		63	500	50			
		63	1000	25			
		76	1000	25			
		76	2500	10			

APPLICATION	<ul style="list-style-type: none"> <li>Seismic explosive is used for seismic exploration.</li> <li>The product density is designed in a way that the cartridge sinks in water.</li> </ul>
ADVANTAGES	<ul style="list-style-type: none"> <li>The product is high strength, high VOD and excellent water resistance packed in couplable tube.</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Initiation is done by No 8 strength Seismic detonator</li> <li>Sleeping time is approximately 8 week</li> </ul>



# BULK EMULSION EXPLOSIVES

**Bulk explosives systems/ Site mixed system** are suitable for customers who require large quantities of explosives. The materials, often mixed on the job by the supplier in the delivery truck, are directly drawn into the shot-hole by trained workers. This is intended for quarry and open pit mining tasks to enhance blast execution, security and environmental conditions.

## SAFETY

- Should be kept away from heat/ sparks/open flames/hot surfaces
- Eliminate all potential sources of ignition. Avoid activities that could create an impact, friction, spark or a sudden rise in temperature
- Keep product clean & free from contamination
- Not intended to be stored. Only to be charged directly into holes at point of use. If loaded holes are left sleeping for long time, proper security arrangement should be done.

## ADVANTAGES

- Excellent water resistance with Extremely Safe and Simple
- Highly Stable Product & Long Sleeping Time (Up to 10 days)
- Reduced Inventory /Mine Bench Handling
- Allows widening of drill pattern, hence, cost efficient
- Better performance since lot of non-productive activities are eliminated
- Bulk explosives fill-up the blast holes completely without gaps/voids
- Use with Minimum Manpower Requirement
- Nominal Site Facility Needed
- Disposal of packaging material on-site is no longer necessary



**We are additionally ready to take into account any on-the-spot requests for change of mixes as per the purpose of customers.**

## SPECIFICATION

PRODUCT NAME	NEO BULK
CATEGORY	EMULSION
VISCOSITY	More than 40000 cps (Brookefield)
SLEEPING TIME	More than 10 days
SENSITIVITY	Can be initiated by 0.2 % of Cast Booster
WATER RESISTANCE	Excellent
AIR GAP SENSITIVITY	As per Specifications
APPLICATION	Bulk Emulsion explosive sensitized by chemical gassing agents and stabilizers. NEO Bulk-901 is ideally suitable for Shovel as well as Dragline bench Blasting.



# **INITIATING SYSTEMS**

## **DETONATING FUSE**

Detonating cord or fuse is a core of high explosives, normally PETN (pentaerythritol tetranitrate), enclosed in PP yarn, plastic sheathing (polyethylene jacket) and natural and synthetic fibre for waterproofing. It is basically PETN in covering of textile, plastic and waterproofing material. The degree of tensile strength, abrasion resistance, and flexibility of each covering varies. It acts as a means for safe and quick initiation of detonator sensitive industrial explosives and provides a path for initiation of non-electric detonators.

## **SAFETY**

- Should be kept protected from water in a wet environment. Detonating cord doesn't initiate if it's wet, since PETN absorbs water and becomes insensitive to detonation. However, it can be initiated from the dry end.
- Detonating cord is an explosive, thus, should be handled and transported carefully at all times.
- It is sensitive to direct lightning strike and intense impact or friction while handling and extremely high temperatures (mostly above 70°C).

## **ADVANTAGES**

- Relatively insensitive to detonation by heat, electrostatic discharge or other forms of electricity
- Excellent resistance to side penetration by oil or water/ Water and abrasion resistant.
- High tensile strength
- Easy to handle and to tie into knots
- Flexible
- Easy identification due to different colours.
- Electronically & mechanically inspected.
- Assures reliable non-electric initiation.
- Safer to use as compared to any other blasting cap/ less risk in handling and loading.
- Easy to connect branch lines.

# DETONATING FUSE

SHIPPING NAME CORD DETONATING , FLEXIBLE		Class /DIV. : I.I D			UN NO : 0065		
AUTHORISED NAME OF PRODUCT	PESO BRAND ID	PETN/MTS	DF PER SPOOL	No of Spool in a box	DF PER BOX	DIA	TENSILE
		gram	mtr	nos..	mtr	mm	[Kgs]
NEO CORD	1031	10	250	4	1000	$5.0 \pm 0.1$	65
		10	375	4	1500		
NEO CORD 8	1153	08	375	4	1500	$4.7 \pm 0.1$	65
NEO CORD 12	1154	12	250	4	1000	$5.2 \pm 0.1$	70
		12	375	4	1500		
NEO CORD 20	1155	20	125	4	500	$6.2 \pm 0.1$	70

APPLICATION	<ul style="list-style-type: none"> <li>The Product is used for trunkline and down line for initiating explosive</li> </ul>
ADVANTAGES	<ul style="list-style-type: none"> <li>Suitable for opencast mines, quarries, trenching and tunneling work.</li> </ul>
HOW TO USE	<ul style="list-style-type: none"> <li>Initiation by Number 6 Detonator</li> </ul>

**Velocity of Detonation ranges from 6500 to 7500 meter/second.**



DETONATING FUSE

# **DETONATORS**

A detonator is an igniter or an initiating device used to activate an explosive. There are three ways to initiate a detonator: electrically, mechanically and chemically. Detonators initiate an explosive in controlled timing by transferring signal from one place to another using chemical, mechanical or electrical reactions. Initiation can be controlled by electrical timing systems or chemical delay elements.

## **ORDINARY DETONATOR**

SBL is manufacturing Ordinary Detonators under the brand name NEO OD. The PESO ID of the Product is 1106 . The Aluminium Plain Ordinary Detonator, non-electric in nature, is commonly used with Safety fuse. These detonators are of No. 8 strength. The Detonators have 37 mm length and Diameter of Shell is 3.7 mm. These Detonators are manufactured in an extremely modern plant using highly sophisticated techniques. Detonator of No. 8 strength ensures effective initiation of Cap Sensitive Explosive. It is initiated when a piece of safety fuse is inserted into the cap.

## **APPLICATION**

Detonators are more effective in Dry holes. They can be used for Boulder blasting, Secondary blasting, Safe initiation in quarry blasting and in non gassy underground, open cast mines, surface excavations, well sinking, road construction, civil works etc.

## **SAFETY**

- Use Slendered quality of Crimper to ensure proper crimping of Detonator.
- Plain Detonators contain sensitive ingredients and must be handled with care and respect at all times.
- Use adequate length of Safety fuse to allow escape of shot firer to safe distance in sufficient time.
- Store at moderate temperatures and dry conditions.



## PACKAGING

100 detonators are packed in a card board box which is further packed in wooden cases containing 1000 Detonators.

PRODUCTS	PESO BRAND ID	CATEGORY	PESO SIZE CODE	No of Detonators in Bunch/ inner box	No of Bunch/ Inner Box	TOTAL Detonators in a Box
NEO OD	1106	ORDINARY DETONATOR	DFQ	100	100	10000



# ELECTRIC DETONATOR

The source of initiation for these detonators is electricity. There are three types of electric detonators produced, namely, instantaneous electrical detonators [IED], short delay detonators [SDD] and long delay detonators [LDD]. SDDs are measured in milliseconds and LDDs are measured in seconds.

Electric detonators are sensitive to heat, shock, static electricity, radio frequency energy, and electromagnetic radiation.



## KEY BENEFITS

- Accurate delay timing
- Waterproof
- Abrasion resistant insulation

**NEO ED is an No. 8 Strength Instantaneous Detonator . Shell of Detonator is made of Aluminium which consists of ASA as primary charge and PETN as secondary Charge. The PVC plug makes the detonator moisture proof and water proof.**

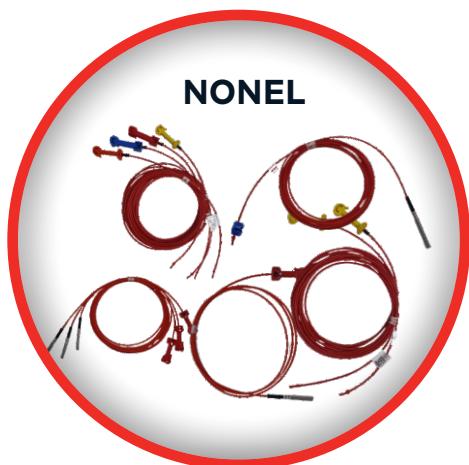
PRODUCTS	PESO BRAND ID	CATEGORY	PESO SIZE CODE	No of Detonators in Bunch/ inner box	No of Bunch/ Inner Box	TOTAL Detonators in a Box
NEO ED	630	INSTANTANEOUS ELECTRIC DETONATOR	DBC	25	20	500
			DBF	25	30	750
			DBI	25	40	1000
			DBL	25	60	1500
NEO MSDD	631	DELAY ELECTRIC DETONATOR	DBC	25	20	500
			DBF	25	30	750
			DBI	25	40	1000
			DBL	25	60	1500

## APPLICATION

Instantaneous Electric Detonators [IED] are used for blasting in quarries, opencast and non-gassy underground mines. The IED's are connected with Detonating Fuse / Explosive in series and is connected with Exploder for firing.

# NON-ELECTRIC DETONATOR

These are widely used across the world. The source of initiation for these detonators is a shock wave which circulates in a tube from one detonator to another. Besides being used for commercial operations, these are also used for military operations. This initiation system consists of shock tubes connected to down-the-hole detonators and surface connectors. These can also use chemical reactions such as rapid burning or violent detonations, to initiate explosive charges.



DTH



DUAL DET



STLD

Apart from all the benefits of an electric detonator, these offer a wide operational flexibility (easier to design larger initiation sequences, theoretically with an unlimited number of delays) and more safety (insensitivity to electricity, radio frequency energy, and electromagnetic radiation). Less interruption as they provide better safety: accidental initiation by static electricity, stray electrical currents, etc. NEO DET is a non-electric initiating device used in Blasting , comprising of both DTHD and STLD in one set [Twin Det].

It consists in one coil of shock tube , one end of which is crimped with DTHD and the other end is crimped with STLD. Thus, it is useful for down the hole delay initiation and also surface initiation in the blast. It is useful in those mines where the drilling and charge loading patterns are fixed . This enables to reduce the waste of shock tube in the usages of DTHD and STLD separately. STLD is housed in a suitable connector, which has a provision to connect 6 shock tubes for initiation. Each NEODET has length indicating stickers and delay time indicating stickers for DTHD and STLD separately for easy identification and handling. The delay detonator is of No. 8 strength. NEO DET provides unlimited delay periods and sequences to conduct large scale blasts. It is available as per the customer's requirement upto 50 meter lengths. The delay timings of NEO DET are any tailor made timing or combinations of the following.

DELAY TIMING	NEO DTS(ms)	NEO STL(ms)
	125,150,175, 200, 225, 300, 350, 400, 450, 500	0,17, 25, 42, 65, 85,100

# SBL ENERGY LIMITED

## SHELL LENGTH/DEALY TIMING CHART

PRODUCT	ASDFS		ALDFS		SDD NONAL		LDD NONAL		STLD			
	Delay No	Shell Length MM	Delay Time MS	Connector Colour								
0	50	0	50	0	50	0	50	0	50	0	0	White
1	54	25	72	500	54	25	72	500	50	17	17	Yellow
2	60	50	78	1000	60	50	78	1000	50	25	25	Pink
3	54	75	72	1500	54	75	72	1500	50	42	42	Orange
4	58	100	76	2000	58	100	76	2000	50	65	65	Blue
5	58	125	80	2500	58	125	80	2500	50	85	85	Red
6	60	150	76	3000	60	150	76	3000	50	100	100	Red
7	62	200	78	3500	62	200	78	3500				
8	60	250	80	4000	60	250	80	4000				
9	62	325	80	4500	62	325	80	4500				
10	64	400	85	5000	64	400	85	5000				
11	62	475			62	475						
12	64	550			64	550						
13	66	625			66	625						
14	70	700			70	700						
15	72	775			72	775						
16	74	850			74	850						
17	68	925			68	925						
18	70	1000			70	1000						
19	72	1100			72	1100						
20	74	1200			74	1200						

- Note :-
1. D F Connector Colour is Blue.
  2. ASDFS Wire Colour Red and Yellow.
  3. ALDFS Wire colour White and Blue.

Production Manager

Quality Manager

# PESO PRODUCT ID

[NEO DET – 632 / NEO DTS – 635 / NEO STL -636]

## PACKING

NEO DET is first packed in a paper bag and the bags are then kept in a Card board Box. 25 to 400 nos. of NEO DET are packed into a box depending on the length of the shock tube.

## ADVANTAGES

- Since STLD is used for surface hook up , it substantially eliminates the air blast noise.
- It provides necessary relief delay to reduce the back break and thereby provides a good free face for the next drilling operations.
- There is no disturbance of stemming column; no desensitization of explosive column, thereby higher explosive efficiency can be achieved.
- Bottom initiation and ground vibration can be controlled
- Provides ultimate number of delays which is particularly helpful in large blasts.
- The leakage current in conductive ore bodies and watery hole will not cause misfire.

PRODUCTS	PESO BRAND ID	CATEGORY	PESO SIZE CODE	No of Detonators in Bunch/ inner box	No of Bunch/ Inner Box	TOTAL Detonators in a Box
				nos.		
NEO DET	632	NON ELECTRIC DETONATOR	DEF	20	20	400
			DFB	05	20	100
			DJD	25	60	1500
NEO DTS	635	NON ELECTRIC DETONATOR	DDG	10	16	160
			DDI	10	20	200
			DDL	10	25	250
			DEV	05	10	50
			DFB	05	20	100
			DFE	05	24	120
NEO STL	636	NON ELECTRIC DETONATOR	DDI	10	20	200
			DDL	10	25	250
			DDO	10	30	300
			DEF	10	20	400
			DFB	05	20	100

S. No.	BRAND NAME	Brand ID	PESO Size Code	MTR LENGTH	NO. OF PACKAGES IN BOX	NO. OF UNITS IN PACKAGE	NO. OF UNITS IN ONE BOX
1.			DEJ	3	12	25	300
2.			DEJ	4	12	25	300
3.			DEI	5	10	25	250
4.			DED	6	10	20	200
5.			DDW	7	10	15	150
6.			DDW	8	10	15	150
7.			DDW	9	10	15	150
8.			DDW	10	10	15	150
9.			DDB	11	10	10	100
10.			DDB	12	10	10	100
11.			DDB	13	10	10	100
12.			DDB	14	10	10	100
13.			DDB	15	10	10	100
14.			DDB	16	10	10	100
15.			DEV	17	10	05	50
16.			DEV	18	10	05	50
17.			DEV	19	10	05	50
18.			DEV	20	10	05	50
19.			DEV	21	10	05	50
20.			DEV	22	10	05	50
21.			DEV	23	10	05	50
22.			DEV	24	10	05	50
23.			DEV	25	10	05	50
24.			DEV	26	10	05	50
25.			DEV	27	10	05	50
26.			DEV	28	10	05	50
27.			DEV	29	10	05	50
28.			DEV	30	10	05	50
29.			DEV	31	10	05	50
30.			DEV	32	10	05	50
31.			DEV	33	10	05	50

S. No.	BRAND NAME	Brand ID	PESO Size Code	MTR LENGTH	NO. OF PACKAGES IN BOX	NO. OF UNITS IN PACKAGE	NO. OF UNITS IN ONE BOX
33.			DEV	34	10	05	50
34.			DFI	35	05	05	25
35.			DFI	36	05	05	25
36.			DFI	37	05	05	25
37.			DFI	38	05	05	25
38.			DFI	39	05	05	25
39.			DFI	40	05	05	25
40.			DFI	41	05	05	25
41.			DFI	42	05	05	25
42.			DFI	43	05	05	25
43.			DFI	44	05	05	25
44.			DFI	45	05	05	25
45.			DFI	46	05	05	25
46.			DFI	47	05	05	25
47.			DFI	48	05	05	25
48.			DFI	49	05	05	25
49.			DFI	50	05	05	25
50.			DFI	50	05	05	25



# COPPER DELAY DETONATOR

PRODUCTS	PESO BRAND ID	CATEGORY	PESO SIZE CODE	No of Detonators in Bunch/ inner box	No of Bunch/ Inner Box	TOTAL Detonators in a Box
				nos.	nos.	nos.
NEO CDD	634	PERMITTED COPPER DELAY DETONATOR	DBD	25	24	600
			DBF	25	30	750
NEO CED	633	PERMITTED COPPER INSTANTANEOUS DETONATOR	DBF	25	30	750
			DBI	25	40	1000
			DBL	25	60	1500

# COPPER DETONATOR



# PETN

**PETN (pentaerythritol tetranitrate)** is a secondary explosive which is in the form of white colour hexagonal crystals. It is primarily used as the explosive core load of detonation cord or as an ingredient of composite explosives & a base charge in blasting caps. It is rarely used as a high explosive independently. Cast primers of PETN are also supplied as shaped charges.

## **SAFETY**

- Dropping or igniting it will typically not cause an explosion as it isn't as sensitive as primary explosives. But it is more sensitive to shock and friction as compared to other secondary explosives
- Deflagration to detonation transition can occur under certain conditions
- PETN is the least stable of the common military explosives

## **ADVANTAGES**

- Can be stored without significant deterioration for longer than Nitro-Glycerine or nitrocellulose
- Easier ignition directly with cap and detonating cord
- The paste is soft and easy to shape



# ELECTRONIC DETONATOR

**NEO E-DET** is a fit for purpose electronic detonator-based blasting system that provides the highest level of quality, security, control, and precise timing to ensure compliant, consistent blasting results.

It can be used in a variety of applications including quarrying, mining, demolition and other specialist areas. The high strength detonator is suitable for initiating most priming charges. Complex firing patterns can be easily transferred to the detonators through the use of computer based software, when implemented properly the highly accurate initiation timings offer benefits in vibration control, fragmentation and general blast optimisation.

The digital firing system used for initiation means each firing circuit and individual detonator is tested and a record retained in the software prior to firing. The circuit can only be initiated by specialist firing equipment offering benefit in safety and security over traditional systems.

Electronic Detonators contain a capacitor, a logic and timing circuit, and explosives within a copper shell. Every detonator is equipped with a connector.

## PRODUCT NAME : NEO E-DET

Communication - Fully testable 2-way
Timing programmable, reprogrammable, pre-programmable
Traceability Unique ID number
Maximum time delay - 30000MS
Minimum increment - 1ms
Delay Accuracy-0.1% +/- 0.5MS
Operating temperature - from -20 Degree Celsius to 80 Degree Celsius
Immunity to ESD-30kV/KV & 2500PF
Anti-AC/DC-AC 220V no damage, DC48V no damage.
ESD resistance Compliant to EN 13763-13
Maximum number of modules 3000+ (Master-Slave Mode)



## **CAST BOOSTERS**

Cast boosters are designed to provide high initiation/ detonation pressure to a wide range of explosives/ blasting agents. They consist of high density molecular explosive (PETN AND TNT) which are sensitive to intense impact, heat or friction, in a plastic shell. Each booster has two longitudinal passages that accommodate a detonator or detonating cord. Cast boosters are needed when a detonator doesn't have an adequate amount of energy to directly initiate an explosive. It detonates a cast booster which then delivers the shock waves to the explosive or blasting agent. A recessed well at the base of the booster provides protection to the Detonating cord, signal tube or lead wires from any damage.

## **ADVANTAGES**

- Cast Boosters have long storage life since it has no liquid ingredients and can be operated easily
- Excellent shelf life, highly resistant to water and oil
- Convenient to use and assemble
- Do not contain Nitro-Glycerin, hence, less sensitive to shock and friction
- High density and a high velocity of detonation maximises performance and makes them good primers and boosters.

## **SAFETY**

- Should be transported, stored and handled with care.
- Avoid impact with solid surfaces or other Cast Boosters. This may lead damage that could lead to a misfire, or a premature initiation.
- Should be transported, stored and handled with care.
- Also, usage of boosters with detonators that cannot be completely fitted within the boosters should be strictly avoided as the detonator might be harmed during charging if not watched. This could lead to untimely detonation
- Cast boosters may be used at temperatures up to 65°C.



**SBL ENERGY OFFERS CAST BOOSTERS IN ,100GMS,  
250GMS & 500GMS AS PER THE NEEDS OF OUR CLIENTS.**



PRODUCT NAME	NEO PRIMEX (PENTOLITE BOOSTER)
Classification	Class - 3, Div. - 2
Appearance	Yellowish Hard Solid Mass
Density	1.55 +0.05 gm/cc
VOD	6500 + 500 m/sec
Sensitivity	Cap Sensitive. Sensitive to No. 6 Detonator & Detonating Fuse
Water Resistance	Excellent
Weight per Cartridge	100gm/ 250gm/ 500gm
Package	25 Kgs. per box
Shelf Life	More than 24 month
Applications	Initiation of non-cap sensitive charges in a bore hole, at any fixed point in a column of explosives charge. Used with ANFO, cartridges and bulk explosives to prime the boreholes.

# Thank You



[www.sblenergy.com](http://www.sblenergy.com)

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