

# 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.

<b>APPLICATION</b>	<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>
<b>HOW TO USE</b>	<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>
<b>PACKAGING</b>	<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.

<b>APPLICATION</b>	<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>
<b>HOW TO USE</b>	<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>
<b>PACKAGING</b>	<ul style="list-style-type: none"> <li>Cartridges are packed in HDPE/LDPE film and further packed in 25 kgs corrugated boxes</li> </ul>



# OPTIGEL

## (Non Cap Sensitive Class II Explosives)

It is a low density non-cap sensitive Class 2 emulsion explosive manufactured by mixing Emulsion matrix with ammonium Nitrate prills with HSD having Brand name OPTIGEL

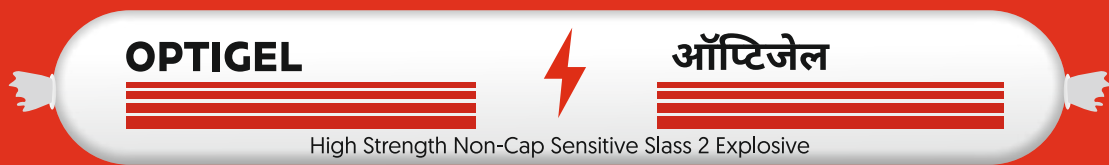
## APPLICATION

Optigel Cartridge is suitable for use in large dia holes, of 100 mm or more & where the blast holes are dry or damp with little presence of water. The product is Non-cap sensitive explosive & is to be used as a column charge in open cut mining, quarrying and for general blasting.

## KEY BENEFITS OF OPTIGEL

### (Low Density Column charge)

- \* Reliable and easy to use, provides consistent result.
- \* Low density product, hence high column height with minimum explosive charge.
- \* Cost effective explosive for dry hole or damp holes.
- \* Higher heave energy compare to Slurry/Emulsion Cartridge Explosives would result in better fragmentation with less vibration. Its heave energy will be equivalent to ANFO.



**SBL ENERGY**  
LIMITED

# OPTIGEL

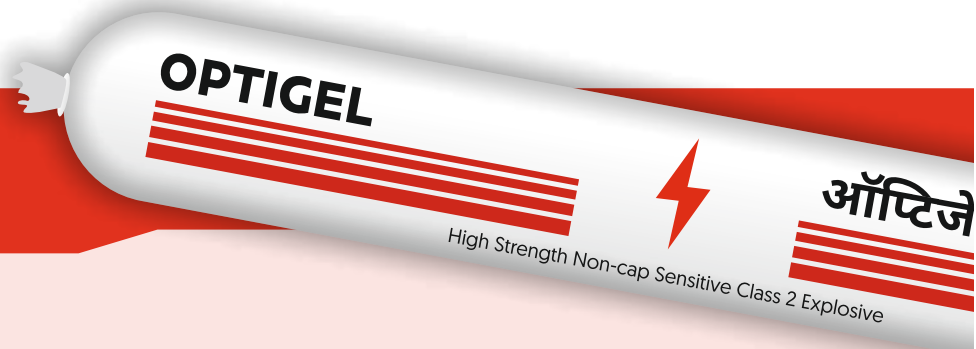
(Non Cap Sensitive Class II Explosives)

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		
OPTIGEL	1140	83	2080	2	0.86	3500 ± 500	95%	95%
		125	6250	4				
		200	12500	12				

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 Column Charge in dry holes</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> </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				

<b>APPLICATION</b>	<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>
<b>ADVANTAGES</b>	<ul style="list-style-type: none"> <li>High density explosive works well in watery holes.</li> </ul>
<b>HOW TO USE</b>	<ul style="list-style-type: none"> <li>Products are High Strength , Non Permitted Emulsion explosives</li> </ul>

