

D. Explosives

DI HIGH EXPLOSIVES

(a) Nitro Glycerine Gelatines

Manufacturer/Supplier : M/s Indian Explosives Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

Type		(i) Gomia Gelatine 50%	(ii) Special Gelatine 60%	(iii) Special Gelatine 80%
Nominal Density	gm/ml	1.55	1.40	1.40
VOD	m/sec	5500	5000	5000
Cartridge Size Dia	mm	75, 83	30	32
	L mm	395, 400	220	200
WT	kg	2.50, 2.78	0.625	0.220

		(iv) Special Gelatine 90%	(v) Opencast Gelatine
Nominal Density	gm/ml	1.40	1.40
VOD	m/sec	5000	6000
Cartridge Size Dia	mm	25	75, 83, 125, 175 & 200
	L mm	200	450, 400, 400, 270 & 305
WT	kg	0.130	2.50, 2.78, 6.25, 8.33 & 12.50

(b) Non permitted explosives

Nitro Glycerine Based (Small Diameter)

1. Manufacturer/Supplier : M/s Indo Gulf Industries Ltd.,
Koti, Sukwa,
Prithipura, Babina,
Jhansi - 284 401 (U.P.)

Type		(i) Detamite 60	(ii) Detamite 80
Cartridge Size Dia	mm	25	25
Density	gm/cc	1.25 - 1.28	1.25 - 1.30
V O D	m/sec	4200 ± 200 Meters	4300 ± 200 Meters
Weight Strength	%	81	88
Water Resistance		Excellent	Excellent

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2. Manufacturer/Supplier : M/s Karnataka Explosives Ltd.,
Vishwasnagar - 574108,
Karkala Taluk, South Canara District.

		(i)	(ii)
Type		Kelvex- 220	Kelvex- 100
Density	gm/cc	1.18 to 1.22	1.10 to 1.15
VOD	m/sec	3800 to 4000	3200 to 3600
Cartridge Size	Dia	25, 25, 50	25, 25, 50
	L	200, 400, 400	200, 400, 400
	WT	0.125, 0.250, 1	0.125, 0.250, 1

2. Manufacturer/Supplier : M/s Noble Explochem Ltd.,
595/2, Giripeth,
Nagpur - 440010.

		(i)	(ii)
Type		Noble GEL - 90	Noble GEL - 80
VOD	m/sec	5000	5000
Cartridge Size	Dia	25, 32	25, 32, 50
	L	150, 200, 400	150, 200, 400, 600

		(iii)	(v)
Type		Noble GEL - 60	Noblex-60
VOD	m/sec	5000	4000
Cartridge Size	Dia	25, 32, 50, 32	25, 32
	L	150, 200, 400, 600	150, 200

3. Manufacturer/Supplier : M/s Tamil Nadu Industrial Explosives Ltd.,
'Corporate Office', No.13, 7th East Main Road,
Gandhinagar,
Vellore - 632 006, Tamil Nadu.

		(i)	(ii)	(iii)	(iv)
Type		Telgex - 90	Telgex - 80	Telgex - 80(IR)	Telpow SD
Nominal Density	gm/cc	1.35	1.4	1.15 to 1.2	1.05
VOD	m/sec	2500 to 3000	2500 to 3000	2500 to 3000	2000 to 2500
Cartridge Size	Dia	25	25	25	25
	Wt	0.130	0.130	0.110	0.140

(c) Non permitted explosives

Nitroglycerine based (Large Diameter)

1. Manufacturer/Supplier : M/s Tamil Nadu Industrial Explosives Ltd.,
'Corporate Office', No.13, 7th East Main Road,
Gandhinagar,
Vellore - 632 006, Tamil Nadu

		(i)	(ii)	(iii)
Type		Telgex LD	Telepow LD	Telcol
Nominal Density	gm/cc	1.4	1.0	1.0 to 1.05

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V O D	m/sec	:	3500 to 4000	2500 to 3000	3000 to 3500
Cartridge Size	Dia mm	:	75, 83, 125	75, 83, 125	75, 83, 125
	WT kg	:	2.5, 2.78, 6.25	1.75, 2.25, 5	1.75, 2.25, 5

(d) Nitro Glycerine Powder

Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

Type	:	Hectorite
Nominal density	gm/ml	: 1
V O D	m/sec	: 2500
Cartridge Size	Dia mm	: 25, 32
	L mm	: 200, 195
	WT kg	: 0.100, 0.135

(e) Seismic Explosives

Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

	(i)	(ii)
Type	Seismic gelatine 80%	Seismic gelatine 90%
Nominal Density	gm/ml : 1.40	1.40
V O D	m/sec : 6000	6000
Cartridge Size	Dia mm : 220, 710	200
	WT kg : 0.625, 2.50	0.135
	Dia mm : 50, 63*	25

* Available in Plastic Couplale tubes

DII AMMONIUM NITRATE FUEL OIL MIXTURES

(a) Ammonium Nitrate Blasting Agent

Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division
P.O.Box No.9084, 34, Chowringhee,
Calcutta - 700 071.

Type	:	GN/1
Nominal density	gm/mL	: 0.95
V O D	m/sec	: 3000
Cartridge Size	Dia mm	: 83, 125, 175, 200
	L mm	: 525, 520, 370, 400
	WT kg	: 2.78, 6.25, 8.33, 12.50

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(b) Dry Blasting Agent

Manufacturer/Supplier : M/s Apex Explosives Private Ltd.,
505, Bayramji Town
Nagpur - 400 013.

Type : Apex - 80
Specific gravity gm/ml : 0.8 ± 0.05
V O D m/sec : 3000 ± 300
Cartridge Size Dia mm : 83, 125, 200
L mm : 620, 620, 600
WT kg : 2.78, 6.25, 12.5

(c) Prilled Ammonium Nitrate and Matrix Emulsion

Manufacturer/Supplier : M/s Anil Chemicals & Industries Ltd.,
T - 18, MIDC Area, Chikalthana
Aurangabad - 431 210.

Type	(i)	(ii)
Type	Explosive Grade Ammonium Nitrate	Matrix Emulsion
Purity	98.5% On dry basis	-
Size of Prills mm	0.8 to 2.8	-
Bulk of Density kg/cum	850 to 900	-
Melting point	169°C	-
Sp gravity gm/cc	-	1.3

DIII (1) Permitted Explosives

(a) Nitroglycerine Gelatine

1. Manufacturer/Supplier : M/s Commercial Explosives Complex,
Ordinance Factory,
Bhandara - 441906, Maharashtra.

Type	(i)	(ii)
Type	Prakash (P - 1)	Pragalph (P - 3)
Nominal Density gm/ml	1.45	1.55 to 1.6
V O D m/sec	2500	2600
Cartridge Size Dia mm	32	32
L mm	130, 155	130, 155
WT kg	0.150, 0.200	0.175, 0.225

2. Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

Type	(i)	(ii)
Type	Ajax G(P1)	Unisax G (P3)
Nominal Density gm/cc	1.55	1.60

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V O D	m/sec	:	3800	3800
Cartridge Size Dia	mm	:	32	32
	L	mm	200	200
	WT	kg	0.225	0.250

3. Manufacturer/Supplier : M/s Karnataka Explosives Ltd.,
Vishwasnagar - 574108,
Karkala taluk,
South Kanara District, Karnataka.

Type	:	Kelvex - 5 (P5)
Nominal Density	gm/cc	: 0.85 to 1.20
V O D	m/sec	: 3000 to 3500
Cartridge Size Dia	mm	: 32
	WT	kg : 0.150, 0.200

(b) Nitro Glycerine Based Explosives

1. Manufacturer/Supplier : M/s Noble Explochem Ltd.,
595/2 Giripeth,
Nagpur - 440010.

Type	:	(i) Nobel Coal - 1	(ii) Nobel Coal - 3	(iii) Nobel Coal - 5	(iv) Noble Blast - 1
V O D	m/sec	: 4800	4800	4000	4000
Cartridge Size Dia	mm	: 32	32	32 32	
	L	mm : 150, 200, 400	150, 200, 400	150, 200, 400	150, 200, 400

Type	:	(v) Noble Blast - 1	(vi) Noble Blast - 3
V O D	m/sec	: 2000 to 2100	2000 to 2100
Cartridge Size Dia	mm	: 32	32
	L	mm : 150, 200	150, 200

2. Manufacturer/Supplier : M/s Tamil Nadu Industrial Explosives Ltd.,
No.13, 7th East Main Road,
Gandhinagar,
Vellore - 632 006, Tamil Nadu

Type	:	(i) Telperma - 1	(ii) Telperma - 5
Nominal Density	gm/cc	: 1.0 to 1.05	1.0 to 1.05
V O D	m/sec	: 2000 to 2500	2000 to 2100
Cartridge Size Dia	mm	: 32	32
	WT	kg : 0.165	0.165

(c) Nitro Glycerine Semigelatines

- Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
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	(i)	(ii)	(iii)	(iv)
Type	: Alphagex (P1)	Permigex (P3)	Soligex (P5)	Solimex (P5)
Nominal Density gm/ml	: 1.20	1.20	1.20	1.20
V O D m/sec	: 2500	2500	2500	2500
Cartridge Size Dia mm	: 32	32	32 32	
L mm	: 195	195	195 195	
WT kg	: 0.220	0.220	0.220	0.220

(d) Nitro Glycerine Powder

1. Manufacturer/Supplier : M/s Commercial Explosives Complex,
Ordinance Factory,
Bhandara - 441906, Maharashtra.

	(i)	(ii)
Type	: Prachand (P1)	Prachar (P3)
Nominal Density gm/ml	: 1.11	1.2
V O D m/sec	: 2400	2200
Cartridge Size Dia mm	: 32	32
L mm	: 190, 225	190, 225
WT kg	: 0.150, 0.200	0.175, 0.225

2. Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

Type	: Viking G (P1)
Nominal Density gm/ml	: 1.00
V O D m/sec	: 2000
Cartridge Size Dia mm	: 32
L mm	: 195
WT kg	: 0.150

(e) Non Nitroglycerine Non Aluminised

1. Manufacturer/Supplier : M/s Karnataka Explosives Ltd.,
Vishwasnagar - 574108,
Karkala Taluk,
South Kanara District, Karnataka.

	(i)	(ii)
Type	: Kelvex - 310	Kelvex - 330
Density gm/cc	: 1.02 to 1.12	1.02 to 1.12
V O D m/sec	: 3200 to 3600	3200 to 3600
Cartridge Size Dia mm	: 32	32
WT kg	: 0.150, 0.200	0.150, 0.200

DIII (2) Slurry Explosives

(a) Aluminised Slurry Explosives (Large Diameter)

1. Manufacturer/Supplier : M/s Eastern Explosives & Chemicals Ltd.,
Chinpai - 731 102,
Birbhum District, West Bengal.

		(i)	(ii)
Type		Ecoblast	Ecodyne
Nominal Density	gm/cc	1.20 to 1.25	1.10 to 1.20
V O D	m/sec	4000 to 4500	3400 to 4300
Cartridge Size	Dia mm	75, 83, 125, 175, 200	75, 83, 125, 175, 200
	WT kg	2.08, 2.77, 6.25	2.08, 2.77, 6.25,
		8.33, 12.5	8.33, 12.5
		Cap Sensitive	Cap Sensitive

2. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018.

Type		Toeblast
Density	gm/cc	1.20 to 1.25
V O D	m/sec	4000 to 4500
Cartridge Size	Dia mm	75, 83, 125, 175, 200 AND ABOVE
	WT kg	2.08, 2.78, 6.25, 8.33, 12.50

(b) Aluminised Gelled Slurry Explosives (Small Diameter)

1. Manufacturer/Supplier : M/s Avanti Explosives Pvt. Ltd.,
536, Balaji Colony,
Tirupati - 517 502, A.P.

Type		Geelex SD
Density	gm/cc	1.10 to 1.20
V O D	m/sec	2500 to 3500
Cartridge Size	Dia mm	25, 40, 50
	WT kg	0.14, 0.50, 1
		Cap Sensitive

2. Manufacturer/Supplier : M/s Eastern Explosives & Chemicals Ltd.,
Chinpai - 731 102,
Birbhum District, West Bengal.

Type		Superdyne
Nominal Density	gm/cc	1.15 to 1.25
V O D	m/sec	3400 to 4000
Cartridge Size	Dia mm	25, 40, 50
	WT kg	0.14, 0.50, 1
		Cap Sensitive

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3. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018.
- Type : Superdyne
Nominal Density gm/cc : 1.15 to 1.25
V O D m/sec : 3400 to 4000
Cartridge Size Dia mm : 25, 40, 50
WT kg : 0.14, 0.50, 1
Cap Sensitive
4. Manufacturer/Supplier : M/s Maharashtra Explosives Ltd.,
Plot No.1-603-A, Byramji Town,
Chindwara Road, Nagpur - 440 013
- | | | | |
|-----------------------|---|---------------|---------------|
| | | (i) | (ii) |
| Type | : | Mexgel | Mexgel - HI |
| Nominal Density gm/cc | : | 1.13 | 1.15 |
| V O D m/sec | : | 3600 | 4000 |
| Cartridge Size Dia mm | : | 25, 25, 50 | 25, 25, 50 |
| WT kg | : | 0.14, 0.20, 1 | 0.14, 0.20, 1 |
| | | Cap Sensitive | Cap Sensitive |
5. Manufacturer/Supplier : M/s Navabharat Explosives Company Pvt. Ltd.,
B-23, Shailendra Nagar,
Raipur, M. P.
- Type : Bharat Blast
Nominal Density gm/cc : 1.2
V O D m/sec : 3800
Cartridge Size Dia mm : 25
Colour of Cartridge : White, Cap Sensitive

(c) Aluminised Gelled Slurry Explosives (Large Diameter)

1. Manufacturer/Supplier : M/s Eastern Explosives & Chemicals Ltd.,
Chinpai - 731 102,
Birbhum District, West Bengal.
- Type : Ecogel - 2
Nominal Density gm/cc : 1.20 to 1.25
V O D m/sec : 3000 to 3500
Cartridge Size Dia mm : 75, 83, 125, 175, 200
WT kg : 2.08, 2.78, 6.25, 8.33, 12.50, Non Cap Sensitive
2. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018.
- | | | | |
|---------------|---|--------------|--------------|
| | | (i) | (ii) |
| Type | : | Supergel | Aquadyne |
| Density gm/cc | : | 1.20 to 1.25 | 1.10 to 1.20 |
| V O D m/sec | : | 3000 to 3500 | 3400 to 4300 |

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Cartridge Size Dia	mm	:	75, 83, 125, 175, 200 and above		75, 83, 125, 200, and above
WT	kg	:	2.08, 2.78, 6.25, 8.33, 12.50		2.08, 2.78, 6.25, 8.33, 12.50
			Non-Cap Sensitive		Cap Sensitive
3. Manufacturer/Supplier		:	M/s Navabharat Explosives Company Pvt. Ltd., B-23, Shailendra Nagar, Raipur, M. P.		
Type		:	(i) Bharat Toe	(ii) Bharat Prime	
Nominal Density	gm/cc	:	1.2	1.15	
V O D	m/sec	:	4000	3900	
Cartridge Size Dia	mm	:	83, 125, 175, 200	83, 125, 175, 200	
Colour of Cartridge		:	Red, Cap Sensitive	Red, Cap Sensitive	
4. Manufacturer/Supplier		:	M/s Navabharat Fuse Company Pvt. Ltd., C-81, Shailendra Nagar, Raipur, 492 001. M. P.		
Type		:	(i) Novaprime	(ii) Novaboost	(iii) Novabase
Nominal Density	gm/cc	:	1.10 to 1.20	1.20 to 1.25	1.20 to 1.25
V O D	m/sec	:	3500 to 4000	4000 to 4500	3200 to 3500
Cartridge Size Dia	mm	:	83,125,175,200	83,125,175,200	83, 125, 175, 200
WT	kg	:	2.78, 6.25, 8.33, 12.50	2.78, 6.25, 8.33, 12.50	2.78, 6.25, 8.33, 12.50
Type		:	(iv) Novapower	(v) Novamite	
Nominal Density	gm/cc	:	1.20 to 1.25	0.9	
V O D	m/sec	:	3500 to 4000	2700	
Cartridge Size Dia	mm	:	83,125,175,200	75, 83, 125, 175	
WT	kg	:	2.78, 6.25, 8.33, 12.50	2.08, 2.7, 6.25, 8.33	

(d) Gelled Slurry Explosives (Large Diameter)

1. Manufacturer/Supplier		:	M/s Eastern Explosives & Chemicals Ltd., Chinpai - 731 102, Birbhum District, West Bengal.		
Type		:	Ecogel - 1		
Nominal Density	gm/cc	:	1.15 to 1.20		
V O D	m/sec	:	3000 to 4000		
Cartridge Size Dia	mm	:	75, 83, 125, 175, 200		
WT	kg	:	2.08, 2.78, 6.25, 8.33, 12.50		
2. Manufacturer/Supplier		:	M/s IDL Chemicals Ltd., P. B. No.1, Sanathnagar, Hyderabad - 500 018.		
Type		:	Energel		
Density	gm/cc	:	1.15 to 1.20		
V O D	m/sec	:	3000 to 4000		
Cartridge Size Dia	mm	:	83, 125, 175, 200 and above		
WT	kg	:	2.78, 6.25, 12.50, 12.50 Booster Sensitive		

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3. Manufacturer/Supplier : M/s Maharashtra Explosives Ltd.,
Plot No.1-603-A, Byramji Town,
Chindwara Road, Nagpur - 440 013.

	(i)	(ii)
Type	Mexblast	Mexcol
Nominal Density gm/cc	1.15	1.15
V O D m/sec	4000	3800
Cartridge Size Dia mm	125, 175, 200	83, 125, 175, 200
WT kg	6.25, 8.33, 12.50	2.78, 6.25, 8.33, 12.50
	Booster Sensitive	Booster Sensitive

4. Manufacturer/Supplier : M/s Navabharat Explosives Company Pvt. Ltd.,
B-23, Shailendra Nagar,
Raipur, M. P.

	(i)	(ii)
Type	Bharat Base	Bharat Column
Nominal Density gm/cc	1.2	1.15
V O D m/sec	3900	3800
Cartridge Size Dia mm	83, 125, 175, 200	83, 125, 175, 200
Colour of Cartridge	Blue, Booster Sensitive	White

(e) Non-Permitted Slurry Explosives (Small Diameter)

1. Manufacturer/Supplier : M/s I B P Co. Ltd.,
5F Vandhna (5th Floor),
11 Tolstoy Marg,
New Delhi - 110 001.

	(i)	(ii)
Type	Indomite- 60	Indomite - 80
Density gm/cc	1.15 ± 0.04	1.18 ± 0.04
V O D m/sec	3700 ± 200	3800 ± 200
Cartridge Size Dia mm	25	25
WT kg	0.150, 0.300	0.150, 0.300

	(iii)	(iv)
Type	Indomite - 60 S	Indomite - 80 S
Density gm/cc	1.15 ± 0.04	1.18 ± 0.04
V O D m/sec	3700 ± 200	3800 ± 200
Cartridge Size Dia mm	45, 50	45, 50
WT kg	0.500, 0.625	0.500, 0.625

2. Manufacturer/Supplier : M/s Indo Gulf Explosives Ltd.,
Babina, Jhansi, U. P.

	(i)	(ii)
Type	Detacoal I	Detacoal V
Cartridge Size Dia mm	32	32

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(f) Non-Permitted Explosives (Small Diameter)

Aluminised Slurry Blasting Agents

Manufacturer/Supplier : M/s Premier Explosives Ltd.,
10-3-56/2/3, Radhakrishna Street,
Entrenchment Road, East Marredpalli,
Secundrabad - 500 026, A.P.

		(i)	(ii)
Type		Dynex - C	Dynex - 3
Nominal Density	gm/cc	1.20	1.10
V O D	m/sec	3500 to 4000	3500 to 4000
Cartridge Size	Dia mm	25, 50	25, 50
	WT kg	0.140, 0.350	0.140, 0.350
		Cap Sensitive	Cap Sensitive

(g) Non Permitted Explosives (Large Diameter)

Aluminised Slurry Blasting Agents

1. Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

Type		Powerflo - 1
Nominal Density	gm/ml	1.20
V O D	m/sec	4000
Cartridge Size	Dia mm	125, 175, 200
	L mm	450, 320, 360
	WT kg	6.25, 8.33, 12.50

2. Manufacturer/Supplier : M/s Maharashtra Explosives Ltd.,
Plot No.1-603-A, Byramji Town,
Chindwara Road, Nagpur - 440 013.

Type		Mexpro
Nominal Density	gm/cc	1.10
V O D	m/sec	3500, Available in LDPE Bags in Size 83 mm and above.

3. Manufacturer/Supplier : M/s Premier Explosives Ltd.,
10-3-56/2/3, Radhakrishna Street,
Entrenchment Road, East Marredpalli,
Secundrabad - 500 026, A.P.

		(i)	(ii)
Type		Dynex - C	Dynex - 3
Nominal Density	gm/cc	1.20	1.10
V O D	m/sec	3500 to 4000	3500 to 4000
Cartridge Size	Dia mm	83, 125, 175, 200	83, 125, 175, 200
	WT kg	2.78, 6.25, 8.33, 12.50	2.78, 6.25, 8.33, 12.50
		Cap Sensitive	Cap Sensitive

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Type	:	(iii)	(iv)	(v)
Nominal Density	gm/cc	: Dynex - 1	Dynex -1 S	Dynex - 2
V O D	m/sec	: 1.20	1.20	1.20
Cartridge Size	Dia mm	: 3000 to 3500	3500 to 4000	3500 to 4000
	WT kg	: 83, 125, 175, 200	83, 125, 175, 200	83, 125, 175, 200
		: 2.78, 6.25, 8.33	2.78, 6.25, 8.33,	2.78, 6.25, 8.33,
		12.50	12.50	12.50
		Non Cap Sensitive		

(h) Non Permitted Explosives (Large Diameter)

Slurry Blasting Agent

Manufacturer/Supplier : M/s Apex Explosives Pvt. Ltd.,
505, Byramji Town,
Nagpur - 440 013.

Type	:	(i)	(ii)
Nominal Density	gm/cc	: Apex Gel - 80	Apex Gel - 90
V O D	m/sec	: 4000 ± 500	4000 ± 500
Specific Gravity	gm/cc	: 1.25 ± 0.05	1.18 ± 0.05
Cartridge Size	Dia mm	: 83, 125, 200	83, 125, 200
	L mm	: 450, 450, 350	450, 450, 350
	WT kg	: 2.78, 6.25, 12.5	2.78, 6.25, 12.5
		Booster Sensitive	Cap Sensitive

(i) Non-Permitted Explosives (Seismic Prospecting)

Aluminised Blasting Agents

Manufacturer/Supplier : M/s Premier Explosives Ltd.,
10-3-56/2/3, Radhakrishna Street,
Entrenchment Road, East Marredpalli,
Secundrabad - 500 026, A.P.

Type	:	Dynex C (Couplable Tubes)
Nominal Density	gm/cc	: 1.20
V O D	m/sec	: 4000
Cartridge Size	Dia mm	: 75
	WT kg	: 1, 2, 2.50, Cap Sensitive

(j) Non Permitted Slurry Explosives (Large Diameter)

1. Manufacturer/Supplier : M/s I B P Co. Ltd.,
5F Vandhna (5th Floor)
11 Tolstoy Marg,
New Delhi - 110 001.

Type	:	(i)	(ii)	(iii)
Density	gm/cc	: ING - 210	ING - 230	ING - 250
V O D	m/sec	: 1.12 ± 0.04	1.13 ± 0.04	1.14 ± 0.04
Cartridge Size	Dia mm	: 3800 ± 200	3900 ± 200	3900 ± 200
	WT kg	: 83, 125, 200	83, 125, 200	83, 125, 200
		: 2.78, 6.25, 12.50	2.78, 6.25, 12.5	2.78, 6.25, 12.5

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(k) Non-Permitted Explosives-Plaster Shooting

Aluminised Blasting Agents

1. Manufacturer/Supplier : M/s Navabharat Fuse Company Pvt. Ltd.,
C-81, Shailendra Nagar,
Raipur - 492 001, M. P.

Type : Novadyne
Nominal Density gm/cc : 1.15 to 1.25
V O D m/sec : 3000 to 4000
Cartridge Size Dia mm : 25
WT kg : 0.14

2. Manufacturer/Supplier : M/s Premier Explosives Ltd.,
10-3-56/2/3, Radhakrishna Street,
Entrenchment Road, East Marredpalli,
Secundrabad - 500 026, A.P.

Type : Dynex C (PP)
Nominal Density gm/cc : 1.20
V O D m/sec : 4000
Cartridge Wt kg : 0.250, 0.500, Cap Sensitive

(l) Emulsion Explosives

1. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018.

Type	:	(i) Supermix Booster Sensitive	(ii) Emulking Booster Sensitive	(iii) Emuldyne Small Dia
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2. Manufacturer/Supplier : M/s I B P Co. Ltd.,
5F Vandhna (5th Floor),
11 Tolstoy Marg,
New Delhi - 110 001.

Type	:	(i) Iregel 1116	(ii) Iregel 1126	(iii) Iregel 1156	(iv) Iregel 1176
Density gm/cc	:	1.25	1.25	1.25	1.25
V O D m/sec	:	5200	5200	5200	5200
Energy cal/gm	:	655	722	784	846
WT Strength	:	0.76	0.86	0.93	1.00
Bulk Strength	:	1.15	1.30	1.40	1.50

Type	:	(v) Iregel 1206	(vi) Iregel 1236	(vii) Iregel 1276
Density gm/cc	:	1.25	1.25	1.25
V O D m/sec	:	5200	5200	5200
Energy cal/gm	:	969	1071	1170
WT Strength	:	1.13	1.24	1.35
Bulk Strength	:	1.70	1.87	2.13

D : Explosives

3. Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

		(i)	(ii)
Type		Powergel - 2	Powergel - C
Nominal Density	gm/ml	1.2	1.2
V O D	m/sec	4800	5000
Cartridge Size	Dia mm	83, 125, 175, 200	83, 125, 175, 200
	L mm	515, 450, 320, 360	515, 450, 320, 360
	WT kg	2.78, 6.25, 8.33, 12.50	2.78, 6.25, 8.33, 12.50

(m) Bulk Slurry Explosives

1. Manufacturer/Supplier : M/s I B P Co. Ltd.,
5F Vandhna (5th Floor)
11 Tolstoy Marg,
New Delhi - 110 001.

		(i)	(ii)	(iii)	(iv)
Type		Indogel 614	Indogel 624	Indogel 634	Indogel 644
Density	gm/cc	1.10	1.11	1.12	1.12
V O D	m/sec	4500 to 5000	4500 to 5000	4500 to 5000	4500 to 5000
WT Strength	(ANFO-1)	0.76	0.79	0.82	0.86
Bulk Strength	(ANFO-1)	1.02	1.07	1.12	1.17

		(v)	(vi)	(vii)	(viii)
Type		Indogel 654	Indogel 664	Indogel 674	Indogel 684
Density	gm/cc	1.13	1.14	1.15	1.15
V O D	m/sec	4500 to 5000	4500 to 5000	4500 to 5000	4500 to 5000
WT Strength	(ANFO-1)	0.89	0.93	0.97	1
Bulk Strength	(ANFO-1)	1.23	1.29	1.36	1.40

		(ix)	(x)	(xi)	(xii)
Type		Indogel 694	Indogel 704	Indogel 714	Indogel 724
Density	gm/cc	1.16	1.17	1.18	1.19
V O D	m/sec	4500 to 5000	4500 to 5000	4500 to 5000	4500 to 5000
WT Strength	(ANFO-1)	1.03	1.07	1.11	1.14
Bulk Strength	(ANFO-1)	1.46	1.53	1.60	1.65

		(xiii)	(xiv)	(xv)	(xvi)
Type		Indogel 735	Indogel 774	Indogel 754	Indogel 764
Density	gm/cc	1.20	1.21	1.22	1.23
V O D	m/sec	4500 to 5000	4500 to 5000	4500 to 5000	4500 to 5000
WT Strength	(ANFO-1)	1.18	1.22	1.25	1.28
Bulk Strength	(ANFO-1)	1.73	1.80	1.86	1.92

		(xvii)	(xviii)	(xix)	(xx)
Type		Indogel 774	Indogel 784	Indogel 794	Indogel 804
Density	gm/cc	1.24	1.24	1.25	1.26
V O D	m/sec	4500 to 5000	4500 to 5000	4500 to 5000	4500 to 5000
WT Strength	(ANFO-1)	1.31	1.34	1.38	1.43
Bulk Strength	(ANFO-1)	1.98	2.03	2.10	2.20

D : Explosives

2. Manufacturer/Supplier : M/s Indian Explosive Ltd.,
Explosives Division,
P. O. Box No. 9084, 34, Chowringhee,
Calcutta - 700 071.

Type : GMS Slurry
Nominal Density gm/ml : 0.75 to 1.10
V O D m/sec : 3300 to 3800
Cartridge Size Dia mm : 150 and above

(n) Permitted Aluminised Slurry Explosives (Small Diameter)

1. Manufacturer/Supplier : M/s Eastern Explosives & Chemicals Ltd.,
Chinpai - 731 102,
Birbhum District, West Bengal.

	(i)	(ii)
Type	Coal Dyne (P1)	Coal Dyne (P3)
Nominal Density gm/cc	1.05 to 1.16	1.05 to 1.15
V O D m/sec	3050 to 3650	3050 to 3650
Cartridge Size Dia mm	32	32
WT kg	0.150	0.150
	Cap Sensitive	

2. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018.

	(i)	(ii)	(iii)
Type	Godyne (P1)	Permadyne (P3)	Pentadyne (P5)
Nominal Density gm/cc	1.05 to 1.159	1.05 to 1.159	1.05 to 1.159
V O D m/sec	3050 to 3650	3050 to 3650	3050 to 3650
Cartridge Size Dia mm	32	32	32, 32
WT kg	0.150	0.150	0.150, 0.200
	DGMS	DGMS	DGMS
	Cap Sensitive	Cap Sensitive	Cap Sensitive

3. Manufacturer/Supplier : M/s Maharashtra Explosives Ltd.,
Plot No.1-603-A, Byramji Town,
Chindwara Road, Nagpur - 440 013.

Type : Mexperm V
Nominal Density gm/cc : 1.10
V O D m/sec : 3400
Cartridge Size Dia mm : 32
WT kg : 0.200

4. Manufacturer/Supplier : M/s Navabharat Fuse Company Pvt. Ltd.,
C-81, Shailendra Nagar,
Raipur, 492 001. M. P.

	(i)	(ii)	(iii)
Type	Novacoal I(p1)	Novacoal II(P3)	Novacoal V (P5)
Nominal Density gm/cc	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15
V O D m/sec	3000 to 3200	2500 to 3000	2500 to 3000
Cartridge Size Dia mm	32	32	32
WT kg	0.150	0.150	0.200

D : Explosives

(o) Permitted Slurry Explosives (Small Diameter)

1. Manufacturer/Supplier : M/s I B P Co. Ltd.,
5F Vandhna (5th Floor)
11 Tolstoy Marg, New Delhi - 110 001.
- | | | (i) | (ii) | (iii) |
|----------------|--------|----------------|----------------|------------|
| Type | | Indocoal 1(HD) | Indocoal 3(HD) | Indocoal 5 |
| Density | gm/cc | 1.05 | 1.04 | 1.05 |
| V O D | m/sec | 3300 | 3000 | 3400 |
| Cartridge Size | Dia mm | 32 | 32 | 32 |
| | L mm | 180 | 180 | 260 |
| | WT kg | 0.150 | 0.150 | 0.225 |
2. Manufacturer/Supplier : M/s Indo Gulf Explosives Ltd.,
Babina, Jhansi.
- | | | (i) | (ii) |
|----------------|--------|------------|------------|
| Type | | Detacoal I | Detacoal V |
| Cartridge Size | Dia mm | 32 | 32 |

(p) Slurry Blasting Agents

1. Manufacturer/Supplier : M/s Premier Explosives Ltd.,
10-3-56/2/3, Radhakrishna Street,
Entrenchment Road, East Marredpalli,
Secundrabad - 500 026, A.P.
- | | | (i) | (ii) | (iii) |
|-----------------|--------|---------------|---------------|---------------|
| Type | | Colex (P1) | Colex 3(P3) | Colex 5(P5) |
| Nominal Density | gm/cc | 1.20 | 1.10 | 1.10 |
| V O D | m/sec | 4000 to 3200 | 3000 to 3200 | 3000 to 3200 |
| Cartridge Size | Dia mm | 32 | 32 | 32 |
| | WT kg | 0.200 | 0.200 | 0.200 |
| | | Cap Sensitive | Cap Sensitive | Cap Sensitive |

DIV BOOSTERS

1. Manufacturer/Supplier : M/s Apex Explosives Pvt. Ltd.,
505, Byramji Town, Nagpur - 440 013.
- | | | |
|----------------|--------|--------------------------|
| Type | | PENTEX |
| Density | gm/cc | 1.6 |
| V O D | m/sec | 7000 |
| Cartridge Size | Dia mm | 0.20, 0.40, 0.100, 0.250 |
2. Manufacturer/Supplier : M/s Avanti Explosives Pvt. Ltd.,
536 Balaji Colony,
Tirupati - 517502, Andhra Pradesh
- | | | |
|-------------------|--------|--------------------|
| Type | | GEELEX-LD-Booster |
| Nominal Density | gm/cc | 1.15 to 1.25 |
| V O D | m/sec | 3600 to 4500 |
| Cartridge Size | Dia mm | 83, 125, 175, 200 |
| Bore Hole Loading | | |
| Hole Dia | mm | 100, 150, 200, 225 |
| Loading Density | kg/m | 9.2, 19.5, 34, 43 |

D : Explosives

3. Manufacturer : M/s Godavari Explosives Pvt. Ltd.,
10-3-56/2/3 1st Floor,
Radhakrishna Street, East Marredpalli,
Secundrabad - 500 026, (A. P.)
- Supplier : M/s Premier Explosives Ltd.,
10-2-56/2/3, Radhakrishna Street,
Entrenchment Road, East Marredpalli,
Secundrabad - 500 026, (A. P.)
- Type : BOOSTEX
Cartridge Size Dia mm : 20, 40, 50, 63
L mm : 34, 50, 60, 105
WT kg : 0.020, 0.100, 0.250, 0.500
4. Manufacturer/Supplier : M/s I B P Co. Ltd.,
5F Vandhna (5th Floor)
11 Tolstoy Marg,
New Delhi - 110 001.
- Type : INDOBOOST
Density gm/cc : 1.16 ± 0.04
V O D m/sec : 4000 ± 100
Cartridge Size Dia mm : 83, 125, 200
WT kg : 2.78, 6.25, 12.5
5. Manufacturer/Supplier : M/s I D L Chemical Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018
- Type : PENTOLITE Booster
Density gm/cc : 1.55 to 1.61
V O D m/sec : 7800
WT kg : 0.25, 0.50
6. Manufacturer/Supplier : M/s INDO Gulf Explosives Ltd.,
Babina, Jhansi.
- Type : AVIBOOST
Cartridge Size Dia mm : 83, 125, 200
7. Manufacturer/Supplier : M/s Karnataka Explosives Ltd.,
Vishwasnagar - 574108,
Karkala Taluk,
South Canara District, Karnataka.
- | | | |
|-----------------------|------------------------|------------------------|
| | (i) | (ii) |
| Type | Kelvex 600 | Kelvex 700 |
| Density gm/cc | 1.18 to 1.23 | 1.23 |
| V O D m/sec | 4500 to 4800 | 4800 |
| Cartridge Size Dia mm | 83, 125, 175, 200 | 83, 125, 175, 200 |
| WT kg | 2.78, 6.25, 8.33, 12.5 | 2.78, 6.25, 8.33, 12.5 |

D : Explosives

Type			(iii)	(iv)
Density	gm/cc	:	Kelvex 800	Kelvex P
V O D	m/sec	:	1.30	1.25
Cartridge Size Dia	mm	:	4800	4800
WT	kg	:	83, 125, 175, 200	50
		:	2.78, 6.25, 8.33	0.500
		:	12.5	-
L	mm	:	-	200

8. Manufacturer/Supplier : M/s Navbharat Fuse Company Pvt. Ltd.,
C-81, Shailendra Nagar,
Raipur - 492 001, M.P.

Type			(i)	(ii)
WT of Booster	kg	:	Novolite 20	Novolite 250
		:	0.20	0.250

DV PRIMERS

1. Manufacturer/Supplier : M/s Avanti Explosives Pvt. Ltd.,
536, Balaji Colony,
Tirupati - 517502 (A. P.)

Type			(i)
Density	gm/cc	:	Geelex-LD-Booster
V O D	m/sec	:	1.15 to 1.25
Cartridge Size Dia	mm	:	3600 to 4500
		:	83, 125, 175, 200

Type			(ii)	(iii)
Density	gm/cc	:	Kelcolem	Kelbase
V O D	m/sec	:	1.17 to 1.23	1.17 to 1.23
Cartridge Size Dia	mm	:	4300 to 4800	4300 to 4800
WT	kg	:	83, 125, 175, 200	83, 125, 175, 200
		:	2.78, 6.25, 8.33, 12.5	2.78, 6.25, 8.33 12.50

2. Manufacturer/Supplier : M/s Maharashtra Explosives Ltd.,
Plot No.1-603-A, Byramji Town,
Chindwara Road, Nagpur - 440 013

Type			
Nominal Density	gm/cc	:	Mexprime
V O D	m/sec	:	1.15
Cartridge Size Dia	mm	:	4200
WT	kg	:	83, 125, 175, 200
		:	2.78, 6.25, 8.33, 12.5

DVI SITE MIX SLURRY PLANT/ANFO MIXING PLANT AND ACCESSORIES

(a) ANFO Loader

Capacity : up to 100 kg

1. Manufacturer/Supplier : M/s Explogel India,
123 Nanapeth,
Pune - 411 002.

Type			
Cap	kg	:	ANFO Loader Trolley Mounted
		:	70, Approved by CCE

D : Explosives

2. Manufacturer/Supplier : M/s Industrial Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No.352, Gandhibagh,
Nagpur - 440 002.

Type	:	(i)	(ii)
Cap	kg	Poranol 'A'	Poranol 'B'
		11.5	100

(b) ANFO Mixing Plant

Capacity : Up to 100 kg

1. Manufacturer/Supplier : M/s Explogel India,
123 Nanapeth,
Pune - 411 002.

Type	:	(i)	(ii)
Cap	kg	ANFO mixer stationery Motorised mechanical Mixer	ANFO mixer stationery Motorised mechanical Mixer
		50, Approved by CCE	100, Approved by CCE

2. Manufacturer/Supplier : M/s Industrial Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No.352, Gandhibagh,
Nagpur - 440 002.

Type	:	(i)	(ii)
Cap	kg	ANFO Mix	Mixonol
		23.5	100
		Manually operated	Manually or Pneumatically operated

(c) ANFO Master Mixing Machine

Capacity : Up to 2.5 tph

1. Manufacturer/Supplier : M/s Anil Chemicals and Industries Ltd.,
J-18 MIDC Area, Chikal Thana,
Aurangabad - 431 210.

Type	:	ANFO master mixing machine
Cap	tph	1
Space required	m	2.5 X 1 X 1.5
WT	kg	400
Diesel storage	lit	100
Pump Capacity	lit/hr	30 TO 95

2. Manufacturer/Supplier : M/s Industrial Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No.352, Gandhibagh,
Nagpur - 440 002.

Type	:	ANFO Mixing-Cum-Charging Unit Truck mounted or Trailer or Mounted
Cap	kg	0.5 to 2.5

D : Explosives

(d) Bulk Loading System

- Capacity** : 12 to 15 tpm
Manufacturer/Supplier : M/s Explogel India,
 123, Nanapeth,
 Pune - 411 002.
Type : Bulk loading system,
 Mobile truck mounted hydraulic unit approved by CCE

(e) Accessories of ANFO Mixing Plant

1. **Manufacturer/Supplier** : M/s Explogel India,
 123, Nanapeth, Pune - 411 002.
Type : Dewatering pump
 Hammer mill
 Vibrator
 Aluminium Additive System
2. **Manufacturer/Supplier** : M/s IBP CO.LTD.,
 5F Vandhna (5th Floor),
 11 Tolstoy Marg New Delhi - 110 001.
Type : Indoprime
Density gm/cc : 1.11 ± 0.04
V O D m/sec : 3900 ± 200
Cartridge Size Dia mm : 83, 125, 200
WT kg : 2.78, 6.25, 12.50
3. **Manufacturer/Supplier** : M/s Indo Gulf Industries Ltd.,
 Koti, Sukwa, Babina,
 Jhansi - 284 401 (U.P).

	(i)	(ii)	(iii)	(iv)	(v)
Type	Aviprime	Avimex	NCN-400	NCN-500	NCN-600
Cartridge Size Dia mm	83, 125, 200	-	83, 125, 200	83, 125, 200	83, 125, 200
Density gm/cc	-	1.60 - 0.05	1.10 - 1.15	1.15 - 1.25	1.20 - 1.30
V O D m/sec	-	7000 ± 500	3600 ± 200	3800 ± 200	4300 ± 200
4. **Manufacturer/Supplier** : M/s Indian Explosives Ltd.,
 Explosives Division,
 34, Chowringhee, P. O. Box No. 9084,
 Calcutta - 700 071.
Type : PRIMEX
V O D m/sec : 7000
Cartridge Size Dia mm : 23, 37, 50, 63
L mm : 45, 50, 82, 110
WT kg : 0.020, 0.100, 0.250, 0.500
5. **Manufacturer/Supplier** : M/s Karnataka Explosives Ltd.,
 Vishwas Nagar - 574 108
 Karkala Taluk, District South Canara,
 Karnataka.

	(i)	(ii)	(iii)
Type	Kelvex 500	Kelvan-Extra	Kelvex-Extra
Density gm/cc	1.23	1.18	1.20

D : Explosives

V O D	m/sec	:	4300	4500	4500
Cartridge Size	Dia mm	:	83, 125, 175	83, 125, 175	83, 125, 175
	WT kg	:	2.78, 6.25, 8.33	2.78, 6.25, 8.33	2.78, 6.25, 8.33

DVII DETONATORS AND FUSES

(a) Plain/Super Plain Detonators

1. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1, Sanathnagar,
Hyderabad - 500 018.

Type : Special ordinary detonator
Shell : Aluminium tube
Strength : No.8
Shell Dimensions L mm : 37
Shell Inner Dia mm : 6.4
Outer Dia mm : 7

2. Manufacturer/Supplier : M/s Indian Explosives Ltd.,
Explosives Division,
34, Chowringhee, P. O. Box No. 9084,
Calcutta - 700 071.

(i) (ii)
TYPE : Plain detonators Super plain detonators

3. Manufacturer/Supplier : M/s Tamil Nadu Industrial Explosives Ltd.,
'Corporate Office'
No.13, 7th East Main Road, Gandhinagar,
Vellore - 632 006, Tamil Nadu.

Type : 'Special' Plain Detonators

(b) Electric Detonators

1. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1 Sanathnagar,
Hyderabad.

(i) (ii) (iii)
Type : Instantaneous Long delay Short delay Electric
Electric Electric Detonators
Detonators Detonators

Shell : Aluminium tube Aluminium tube Aluminium tube
Strength : No.6 No.6 No.6
Leg Wire Colour : White Red/Red Blue/Red
Shell Dimensions L mm : 37 Varies for Varies for different
different delay nos.
Dia mm : 7 - -
Leg Wire Dia SWG Iron Wire : 24 24 24

D : Explosives

Leg Wire Resistance				
Ohms per m	:	0.55 ± 0.15	0.55 ± 0.15	0.55 ± 0.15
Fuse Head Resistance				
ohms	:	1.6 to 2.0 & 2.0 to 2.4	1.6 to 2.0 & 2.0 to 2.4	1.6 to 2.0 & 2.0 to 2.4
Firing Impulse MWS per				
ohms	:	3.2	3.2	3.2
Minimum Firing Current per				
Series ADC	:	1.2	1.2	1.2
'No Fire' Current	A	0.18	0.18	0.18
		Applied for 300 Seconds	Applied for 300 Seconds	Applied for 300 Seconds
Leg Wire Length	M	1.8	2, 3, 4, 5	2, 3, 4, 5
Type	:	(iv) Instantaneous Electric Detonator	(v) Coal Delay Detonator	
Shell	:	Copper coated steel tube	Copper coated steel tube	
Strength	:	No. 6	No.6	
Leg Wire Colour	:	White	Blue/White	
Shell Dimensions L	mm	37	Varies for different delay nos.	
Dia	mm	7	-	
Leg Wire Dia SWG Iron Wire	:	24	24	
Leg Wire Resistance				
Ohms per m	:	0.55 ± 0.15	0.55 ± 0.15	
Fuse Head Resistance				
ohms	:	1.6 to 2.0 & 2.0 to 2.4	1.6 to 2.0 & 2.0 to 2.4	
Firing Impulse MWS per				
ohms	:	3.2	3.2	
Minimum Firing Current Per				
Series Adc	:	1.2	1.2	
'No Fire' Current	A	0.18	0.18	
		Applied for 300 Seconds	Applied for 300 Seconds	
Leg Wire Length	m	1.8, 2, 2.2	-	
2. Manufacturer/Supplier	:	M/s Indian Explosives Ltd., Explosives Division, 34 Chowringhee, P. O. Box No. 9084, Calcutta - 700 071.		
Lead Wire L Standard	m	(i) 1.8	(ii) 3	
Construction	:	PVC Coated Steel	PVC Coated Steel	
Lead Wire Colour	:	Blue for Aluminium and Yellow for Copper tube	Yellow and Green	

D : Explosives

Delay Nos.	:	-	0 to 10
Nominal Delay Interval	:	-	300
	ms		
Type	:	(iii) Short Delay (Aluminium Tube)	(iv) Carrick-Non Incentive Short Delay (Copper Tube)
Lead Wire L Standard	m	3	2.5
Construction	:	PVC Coated Steel	PVC Coated Steel
Lead Wire Colour	:	Green	Orange
Delay Nos.	:	0 to 10	0 to 6
Nominal Delay Interval	:	25	25
	ms		
3. Manufacturer/Supplier	:	M/s Tamil Nadu Industrial Explosives Ltd., 'Corporate Office' No.13, 7th East Main Road, Gandhinagar, Vellore - 632 006, Tamil Nadu.	
Type	:	(i) Aluminium Instantaneous Electric Detonator	(ii) Milli Second Delay Detonator
Stay Current	:	180 mA for 300 sec	180 mA for 300 sec
No Fire Impulse	:	180 mA for 300 sec	180 mA for 300 sec
	mws/ohms	0.8	0.8
All Fire Impulse	:	0.8	0.8
	mws/ohms	3.2	3.2
Series Firing Ability	:	1.2 A for 4 MS	1.2 A for 4 MS
Fuse Head Resistance 0	:	1.2 A for 4 MS	1.2 A for 4 MS
	ohms	1.4 to 2.0	1.4 to 2.0
Lead Wire Colour	:	Light Orange	Orange and Green
Lead Wire L	m	1.8 to 2	3
Range of Delays	:	-	0 to 10
Type	:	(iv) Copper Instantaneous Electric Detonator	(v) Coper Delay Detonator (Milli Second)
Stay Current	:	180 mA for 300 sec	180 mA for 300 sec
No Fire Impulse	:	180 mA for 300 sec	180 mA for 300 sec
	mws/ohms	0.8	0.8
All Fire Impulse	:	0.8	0.8
	mws/ohms	3.2	3.2
Series Firing Ability	:	1.2 A for 4 MS	1.2 A for 4 MS
Fuse Head Resistance	:	1.2 A for 4 MS	1.2 A for 4 MS
	ohms	1.4 to 2.0	1.4 to 2.0
Lead Wire Colour	:	Pink	Pink and Green
Lead Wire L	m	2	2.5
Range of Delays	:	-	0 to 6

D : Explosives

(c) Seismic Instantaneous Electric Detonators

Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1 Sanathnagar,
Hyderabad - 500 018.

Type : Non delay aluminium 57 mm long shells
 Stay Current Protection : No fire when a current of 250 mA for 300 sec is applied
 Reaction time : Less than 1.0 ms
 Resistance of fuse Head ohms : 1.0 - 1.3
 Water Resistance : Can stand 100 ft head of water for 24 hours
 Firing Current A : 7 to 10
 Resistance to temp : Can stand a temp of 60 to 70°
 Dia of Shell mm : 7.2
 Colour of Lead Wires : Orange
 Resistance of Lead Wires : 0.55 to 0.065 for 23 swg
 0.65 to 0.070 for 24 swg

(d) Detonating Fuse

1. Manufacturer/Supplier : M/s Godavari Explosive Pvt. Ltd.,
10-3-56/2/3, 1st Floor,
Radhakrishna Street, East Marredpalli,
Secundrabad - 500 026.

Type		(i)	(ii)	(iii)	(iv)
Core Charge	G/M	Safcord 6	Safcord 10	Safcord 20	Safcord 40
V O D	km/sec	6	10	20	40
		6.5	6.5	6.5	6.5

2. Manufacturer/Supplier : M/s IDL Chemicals Ltd.,
P. B. No.1 Sanathnagar,
Hyderabad - 500 018.

Type		(i)	(ii)	(iii)
Nominal Dia	mm	D-Cord I	D-Cord-II	D-Cord III
		3.9	4.65	6.0
Core Charge	G/M	6	10	20
V O D	km/sec	6.8	6.8	7
Colour		Yellow	Orange	Red

Type		(iv)	(v)
		Seismic Detonating Fuse	Seismic Detonating Fuse
Nominal Dia	mm	6 ± 0.3	8.1 ± 0.3
Core Charge	G/M	20	40
V O D	km/sec	6.5	6.5
Colour		Red	Orange

3. Manufacturer/Supplier : M/s Indian Explosives Ltd.,
Explosives Division,
34 Chowringhee, P. O. Box No. 9084,
Calcutta - 700 071.

D : Explosives

- | | | | | | |
|--|--------|---|-------------------------|-------------|----------|
| | | | | | |
| Type | | | (i) | (ii) | |
| Nominal Dia | mm | : | Cordtex | Geocard | |
| V O D | km/sec | : | 5 | 6 | |
| | | : | 6.5 to 7 | 7 to 7.5 | |
| 4. Manufacturer/Supplier : M/s Indo Gulf Industries Ltd.,
Koti, Sukwa, Babina,
Jhansi - 284 401 (U.P.) | | | | | |
| Type | | : | Avicord - II | | |
| Dia | mm | : | 5 ± 0.2 | | |
| Weight of Petn per | m | : | 10 gm | | |
| V O D | m/sec | : | 6500 ± 500 | | |
| Water Resistance | | : | Excellent | | |
| Initiation | | : | No. 6 Detonator | | |
| Shelf Life | | : | One Year | | |
| | | : | Available in 375 M/Reel | | |
| 5. Manufacturer/Supplier : M/s Maharashtra Explosives Ltd.,
Plot No. 1-603-A, Byramji Town,
Chhindwara Road,
Nagpur - 440013. | | | | | |
| Type | | : | Mexcord II | | |
| Nominal Dia | mm | : | 4.8 | | |
| Core Charge | G/M | : | 10 | | |
| V O D | km/sec | : | 6.5 | | |
| Colour | | : | Pink | | |
| 6. Manufacturer/Supplier : M/s Navabharat Fuse Co. Pvt. Ltd.,
C-81, Shailendra Nagar,
Raipur - 492 001 (M.P.) | | | | | |
| Type | | : | (i) | (ii) | (iii) |
| Core Charge | G/M | : | Novacord I | Novacord II | Novatwin |
| V O D | km/sec | : | 6 | 10 | 6 + 6 |
| | | : | 6.5 | 6.5 | 6.5 |
| 7. Manufacturer/Supplier : M/s Tamil Nadu Industrial Explosives Ltd.,
'Corporate Office'
No.13, 7th East Main Road, Gandhinagar,
Vellore - 632 006, Tamil Nadu. | | | | | |
| Type | | : | (i) | (ii) | |
| Core Charge | G/M | : | Telcord I | Telcord II | |
| V O D | km/sec | : | 6 | 10 | |
| Colour | | : | 6.5 | 6.5 | |
| | | : | Pink | Violet | |

D : Explosives

(e) Safety Fuse

Manufacturer/Supplier : M/s Indian Explosives Ltd.,
Explosives Division,
34 Chowringhee, P. O. Box No. 9084,
Calcutta - 700 071.

Type : Blue sump
Ocps
Blue Plastic

Burning Speed sec/m : 100 to 120

DVIII MAGAZINES, CARRYING BOXES AND ACCESSORIES

(a) Portable Magazines

Manufacturer/Supplier : M/s Indian Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No. 352, Gandhibagh,
Nagpur - 440 002.

Model	(i)	(ii)	(iii)
WT	'C' & 'D'	'M'	'B'
Approved Storage Cap Class I, II, III High Explosives	kg : 50	215	425
OR			
Ordinary Detonators	nos : 200	150	500
OR			
Electrical Detonators	nos : 200	20,000	44,000
OR			
Detonator Fuse	m : -	5,000	12,000
OR			
Safety Fuse	coils : -	2,440	10,000
		400	

(b) Detonator Magazine

Manufacturer/Supplier : M/s Industrial Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No. 352, Gandhibagh,
Nagpur - 440 002.

Model : S

Capacity

Ordinary Detonators
Nos. : 10,000

Electrical Detonators
Nos. : 2,500

WT : 115 kg

D : Explosives

(c) Carrying Box

Manufacturer/Supplier : M/s Industrial Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No. 352, Gandhibagh,
Nagpur - 440 002

Type : Steel Carrying Box
Cap : Special Gelatine 5 kg or Detonators 200 Nos.
Size mm : 315 X 255 X 140

(d) Accessories of Portable Magazine

Manufacturer/Supplier : M/s Industrial Explosives Pvt. Ltd.,
Maimoon Chamber, Central Avenue,
P. O. Box No. 352, Gandhibagh,
Nagpur - 440 002

Type : Telescopic Lighting Conductor
Weather Protection Hood
M S Channel
Copper Earthing Tape
Copper Earthing Plate
Non Sparking Tools