



Safety • Quality • Reliability

Technical Data Sheet

Solargel-E[®]

emulsion explosives



Description & Application

Solar Gel-E is a high strength booster sensitive packaged explosives suitable for use in most types of blasting applications using small, medium and large diameter holes and represent the latest development in slurry explosives technology.

The product is chemically gassed and is specifically designed for blasts in open cut mines, quarries and construction. Superior rigid gel also ensures good handling.

Its high strength and high velocity of detonation ensures good fragmentation in hard strata and give excellent blast results in quarrying, road cutting, canal excavation and civil construction.

Product is relatively insensitive to accidental initiation due to impact, friction and fire. Hence it is very safe during handling, transportation, storage and usage.

Excellent water resistance allows usage in watery holes. Product has excellent fume characteristics post detonation.

Technical Properties

Nominal Density (g/cc)	1.15 ± 0.05
Relative Weight Strength*	82 %
Relative Bulk Strength*	100 %
Minimum Velocity of Detonation (Km/Sec)	3.8

*Compared to ANFO@ 0.85 g/cc

Notes :

- REE is the Effective Energy relative to ANFO at a density of 0.85g/cc. ANFO has an effective energy of 2.30 MJ/kg.
- VOD will depend on application including explosive density, blasthole diameter, temperature and degree of confinement. The minimum VOD quoted is based on unconfined test firing data and calculated energy values.

Packaging

Solar Gel-E is packaged in plastic film/layflats. Each box contains nominally 25kg of product with standard cartridge sizes and counts as follows :

Diameter mm	Nominal length mm	Nominal Mass gm	Cartridge per Box
83	460	2780	9
125	460	6250	4

Other diameter/grams combinations can be offered on request.

Recommendations for Use

- Excellent water resistance and high density allow use in wet blastholes.
- Requires Booster for reliable initiation.
- Suitable for use in ground temperatures up to 65°C.
- During charging ensure that cartridges are charged in a continuous column in the bore hole.
- Post detonation fume characteristics of the product make it suitable for both underground and surface blasting applications, however users should ensure that adequate ventilation is provided prior to re-entry into the blast area.
- Avoid extremes of shock, heat, friction or mechanical impact to prevent pre-mature initiation.



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Storage & Handling

For the best results, store under moderate temperatures and dry conditions in a well ventilated, approved magazine.

If stored in cool, dry, well ventilated magazine and handled properly, the shelf life of Solar Gel-E is 6 Months from the date of Manufacturing. However exposure to hot or cold extremes may cause the product to deteriorate prematurely.

All regulations pertaining to the handling and use of such explosives apply.

Shipping Information :

Authorised Name of Explosive : SOLAR GEL-E
Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE E
Class / Div. : 1.1D
UN No. : 0241

Disposal

The disposal of explosives material is dangerous and require special training. Methods used for safe disposal may vary from case to case and will depend upon conditions under which the operations take place. For further information please contact Solar representative in your area.

Disclaimer

Use of these products by anyone who lacks adequate training, experience & supervision may kill or injure. It is expressly understood that any technical advice furnished by SILL with reference to the use of its Products is given gratis & SILL assumes no obligation or liability for the advice given or results obtained, & all such advice being given is accepted at Customer's risk.

SILL makes no warranty of any kind, written or oral, express or implied, except that the Products shall meet SILL's standard specifications for such Products. Customer shall assume all risk and liability for results obtained by the use of such Products whether used singly or in combination with other products. Under no circumstances shall SILL or any of its subsidiaries be liable for special, consequential or incidental damages or for anticipated loss of profits.

Any dispute arising out of above information shall be dealt in accordance with the laws of Republic of India and subject to jurisdiction of Courts at Nagpur, India.

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