



## TECHNICAL DATA SHEET

### 1. Product Classification



<b>Authorized name:</b> Solargel-E	<b>Shipping Name:</b> Explosive, Blasting, Type E	<b>UN No:</b> 0241	<b>Class Code:</b> 1.1D
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### 2. Description

Solargel-E is a booster sensitive emulsion explosive. The explosive is grey in color with a firm putty-like consistency.

### 3. Application

Solargel-E is a waterresistant packaged explosive. Even though it is generally used in watery holes instead of ANFO, it can also be used in dry holes in order to provide better fragmentation in every kind of rock. For better bottom cutting, fragmenting and displacement it is recommended to use Solargel-E also as bottom charge.

### 4. Key Benefits

- Solargel-E is not affected from water. It does not lose its performance in water. It sinks to the bottom of hole since it is denser than water; meanwhile it lifts the water up by displacing.
- Solargel-E thanks to its high energy release and blasting parameters brings excellent results in blasting operations.
- Solargel-E can be offered as cartridge products as well as bulk product to be pumped into the holes directly via specially equipped trucks.
- It is possible to produce custom explosives formulation for different rock formations by adjusting ANFO and emulsion proportions. Explosives having high gas yield for soft rock formations or explosives with higher breaking power for hard rock formations can be produced.

### 5. Technical Properties

<b>Bulk Density (g/cc)</b>	<b>1.20±0.5</b>
<b>V.O.D. (Velocity of Detonation-m/sec.) in minimum cartridge diameter-60mm</b>	<b>5000 (unconfined)</b>
<b>Water Resistance</b>	<b>Excellent</b>
<b>Transmission of Detonation</b>	<b>2 cm</b>

### 6. Packaging

Solargel-E emulsions are packed in white(65-75mm)/blue (125mm-140mm) plastic film with clipping at both ends. The cartridges are packed in approved cardboard boxes. The net weights in each box are as below table.

<b>Diameter (mm)</b>	<b>Weight (gr)</b>	<b>Nominal count per case</b>	<b>Net weight per box (kgs)</b>
60	1800	10	18
65	2000	10	20
75	2000	10	20



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125	7500	2	15
140	10000	2	20

### 7. Recommendations for Use

#### 7.1. BlastHole Depth

Solargel-E is suitable for use in every kind of metal and coal mining, in cement and limestone and raw material quarries, dam and road construction and any kind of railroad constructions, trench blasting and any kind of special blasting operations.

#### 7.2. Priming and Initiation

Solargel-E is booster sensitive explosive and can be initiated using a cap sensitive explosive for initiation. Superpower90 products are recommended as booster for initiation of Solargel-E.

#### 7.3. Charging

In various diameter blasthole the maximum energy per meter of blast hole can be achieved by tamping the explosive with a wooden tamping rod appropriate to the hole diameter. No metal instrument should be used to tamp explosives.

#### 7.4. Sleep time

In dry blastholes given the explosives packaging is undamaged, Solargel-E can be fired several month later (provided the product remains within its recommended shelf life). If the explosive packaging is damaged, the sleep-time in blastholes is influenced by the extent of damage to the packaging and by the nature of any water presence. Even with full length slitting of cartridges, the explosive will give good performance after two weeks immersion. Sleep time information states that good performance will be obtained with a fully slit cartridge immersed in water.

### 8. Storage and Handling

Store this product in a suitably licensed magazine for class 1.1D explosives. The cases should be stacked in the manner designated on the cases.

Solargel-E has a storage life up to 6 months in an approved magazine. However, exposure to hot or cold extremes may cause the product to deteriorate earlier. Solargel-E is best stored at temperatures between 10°C and 30°C. All regulations pertaining to the handling and use of such explosives apply.

### 9. Disposal

Disposal of explosive material can be hazardous. Method for safe disposal of explosives may vary depending on the specific conditions. Please contact Solar for information on safe practices.

### 10. Safety

The post detonation fumes characteristics of Solargel-E make the product suitable for both underground and surface blasting applications. Users should ensure that adequate ventilation is provided prior to re-entry into the blast area. Solargel-E can initiate by extreme shock, friction of mechanical impact. As with all explosives, Solargel-E should be handled and stored with care and must be kept clear of flame of excessive heat.

Solargel-E does not burn easily, but it must be kept clear of flame and excessive heat.

### 11. Disclaimer

Explosives based on Ammonium Nitrate such as Solargel-E may react with pyritic materials in the ground and create potentially hazardous situations. Solar accepts no responsibility for any loss or liability arising from use of the product in ground containing pyritic or other reactive material.



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All information contain in this document is accurate and up-to-date as at the date of issue. Since Solar Patlayıcı Maddeler Sanayi A.Ş. cannot anticipate or control the conditions under which this information and its product may be used, each user should review the information in the specific context of the intended application. To the maximum extent permitted by law, Solar Patlayıcı Maddeler Sanayi A.Ş. will not be responsible for damages of any nature resulting from the use or reliance up to information in this document. No express or implied warranties are given, other than those implied mandatory by law.

### 12. Approvals

Solar Explosives company has its own integrated management system ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, ISO 45001:2018 Occupational Health&Safety Management System and in an addition, ISO 10002:2014 Customer Satisfaction Management System.

### 13. Other Informations

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