Description & Application

Supercoal 1 is a detonator sensitive packaged emulsion explosive. The Director General of Mines safety (DGMS) has approved Supercoal 1 as a P1 type permitted explosive for use in Degree I gassy coal mines/seams. The emulsion has firm putty like consistency. It is plastic wrapped with steel wire end clips. Cartridges are identified individually as P1 Permitted explosive with a product name, cartridge dimensions and name of manufacturer printed on each cartridge.

Supercoal 1 is a water resistant packaged explosive for use in all applications that require the use of a P1 classified explosive.

Technical Specifications

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Density (g/cc)</td>
<td>1.15 ± 0.05</td>
</tr>
<tr>
<td>Relative Weight Strength*</td>
<td>92 %</td>
</tr>
<tr>
<td>Relative Bulk Strength*</td>
<td>130 %</td>
</tr>
<tr>
<td>Minimum Velocity of Detonation (Km/Sec)</td>
<td>3.5 +/- 0.4</td>
</tr>
</tbody>
</table>

*Compared to ANFO@ 0.85 g/cc

Packaging

Net Explosive weight is nominally 25 Kgs and standard cartridge sizes are as below:

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Nominal length (mm)</th>
<th>Nominal Mass (gm)</th>
<th>Cartridges per case</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>180</td>
<td>150</td>
<td>166</td>
</tr>
<tr>
<td>32</td>
<td>200</td>
<td>200</td>
<td>125</td>
</tr>
</tbody>
</table>

Recommendations for Use

- Suitable for use in watery holes.
- To be used in gassy coal mines/seams of first degree for blasting in coal after it has been under-cut, mid-cut, over-cut or in depillaring operations.

Charging

- Maximum energy of blasthole can be achieved by tamping the explosive with a wooden tamping rod.
- Do Not use metal instrument to tamp explosives.
- Do Not tamp primer cartridge containing a detonator.
- The maximum charge per shot hole for P1 type permitted explosives must not exceed 800 grams in Degree I mines.

Priming & Initiation

The recommended initiator for Supercoal 1 is a No. 6 strength, DGMS approved, non-incendive short delay detonator.

Important

Detonating Cords are not recommended for use with Supercoal 1.

Safety

The post detonation fume characteristics and non incendivity of Supercoal 1 make it suitable for blasting in underground coal applications. User should ensure that adequate ventilation is provided prior to re-entry to the blast site.

Avoid extremes of shock, heat, friction or mechanical impact to prevent pre-mature initiation.
Sleep Time within Blastholes

The undamaged product may be charged and fired several days later in dry holes (provided the product remains within its recommended shelf life).

If the explosives packaging is damaged, the sleep-time in a blasthole is influenced by the extent of damage to the packaging and by the nature of any water present.

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 Supercoal 1 is 6 months from the date of manufacturing. However exposure to hot or cold extremes may cause the product to deteriorate pre-maturely.

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

Shipping Information

Authorised Name of Explosive : SUPERCOAL 1
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.