Description
Senatel™ Powerex™ C packaged emulsion explosive is a robust, detonator sensitive explosive. The explosive is off-white in color with a firm putty-like consistency and is paper wrapped in tampable, convolute paper shells for underground use.

Application
Senatel™ Powerex™ C is designed for priming applications, and as a medium density column explosive, in development and production mining and general blasting work where holes are ragged and tough to load. The high detonation velocity and the robust nature of Senatel™ Powerex™ C make it an ideal primer for the initiation of pneumatically loaded Amex™ blasting agent.

Key Benefits
- Senatel™ Powerex™ C replaces film wrapped product for charging ragged tough to load bore holes.
- Senatel™ Powerex™ C is a suitable primer for small and medium diameter blastholes.
- Senatel™ Powerex™ C provides leads to controlled powder factors in altered rock formations with vugs and seams.
- Senatel™ Powerex™ C reduces post-blast fumes and improves turnaround time.
- Senatel™ Powerex™ C is highly water resistant, which minimizes leaching and reduces environmental impact.
- OH&S issues around the handling and storage of nitroglycerin are eliminated.

Technical Properties

<table>
<thead>
<tr>
<th>Senatel™ Powerex™ C 32 x 200 mm (1 ¼ x 16 in.)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cartridge Density</td>
<td>1.18 g/cc</td>
</tr>
<tr>
<td>Typical Velocity of Detonation</td>
<td>4,700 m/s (15,400 ft/s)</td>
</tr>
<tr>
<td>Water Resistance</td>
<td>Excellent</td>
</tr>
<tr>
<td>Fume Class</td>
<td>1</td>
</tr>
<tr>
<td>Relative Effective Energy (REE)</td>
<td>85</td>
</tr>
<tr>
<td>Relative Weight Strength (RWS)</td>
<td>85</td>
</tr>
<tr>
<td>Relative Bulk Strength (RBS)</td>
<td>119</td>
</tr>
</tbody>
</table>

Recommendations for Use

Blasthole Depth
Senatel™ Powerex™ C is suitable for use in holes of any practical depth providing contained water does not exceed 20 m (66 ft.) depth.

Priming and Initiation
An Orica high strength electric, electronic, or non-electronic detonator can reliably initiate Senatel™ Powerex™ C at temperatures higher than -15°C (5°F). At temperatures below -15°C (5°F), an appropriately sized Pentex™ Booster is recommended. Use of detonating cord with Senatel™ Powerex™ C is not recommended. Detonating cord will adversely affect the performance and could result in misfires. Consult an Orica representative before attempting to use with detonating cord.

Charging
In small diameter blast holes the maximum energy per meter of blasthole 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. The primer cartridge containing a detonator must not be tamped.
Sleep-Time within Blastholes
The sleep time in a blasthole is influenced by the extent of damage to the packaging and by the nature of any water present.

Packaging
Senatel™ Powerex™ C is packaged tampable, convolute paper shells. Cartridges are packed in 25 kg (55 lb) fiberboard cartons. Standard cartridge sizes are as follows:

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>Size (in.)</th>
<th>Nominal Count per Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 x 300</td>
<td>1 x 12</td>
<td>158</td>
</tr>
<tr>
<td>28 x 400</td>
<td>1¼ x 16</td>
<td>57</td>
</tr>
<tr>
<td>32 x 200</td>
<td>1½ x 8</td>
<td>141</td>
</tr>
<tr>
<td>32 x 400</td>
<td>1¼ x16</td>
<td>73</td>
</tr>
<tr>
<td>40 x 400</td>
<td>1½ x16</td>
<td>50</td>
</tr>
</tbody>
</table>

Storage and Handling
Product Classification
Authorized Name: Senatel™ Powerex™ C
Correct Shipping Name: Explosive, blasting, type E
UN No: 0241
Classification: 1.1D

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

Storage
Store Senatel™ Powerex™ C in a suitably licensed magazine for Class 1.1D explosives. The cases should be stacked in the manner designated on the cases. Senatel™ Powerex™ C has a shelf life of up to 12 months from date of manufacture in a well-ventilated, approved magazine.

Senatel™ Powerex™ C is best stored at temperatures above -15°C (5°F). This is especially important in cold weather "load and shoot" worksites where there is insufficient in hole warm-up time.

For recommended good practices in transporting, storing, handling, and using this product, refer to the "Always and Never" booklet packed inside each case.

Transport
Senatel™ Powerex™ C should be transported between -40°C (-40°F) and +40°C (104°F).

Disposal
Disposal of explosive materials can be hazardous. Methods of safe disposal of explosives may vary depending on the user’s situation. Please contact an Orica Technical Services Representative for information on safe practices.

Safety
The post detonation fume characteristics of Senatel™ Powerex™ C 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.

Senatel™ Powerex™ C can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, Senatel™ Powerex™ C should be handled and stored with care and must be kept clear of flame and excessive heat.

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Emergency Telephone Numbers
For chemical emergencies (24 hour) involving transportation, spill, leak, release, fire or accidents:

Canada: Orica Canada emergency response 1-877-561-3636

USA: Chemtrec 1-800-424-9300

Notes:
(1.) Unconfined at 5ºC (41ºF). VOD will depend on application including explosive density, blasthole diameter and degree of confinement. The VOD range is based on minimum unconfined and calculated ideal.

(2.) The Relative Effective Energy (REE) of an explosive is the energy calculated to be available to do effective blasting work. All energy values are calculated using the IDeX™ computer code owned by Orica for the exclusive use of its companies. Energy values are based on standard ANFO with a density of 0.84 g/cc and a cut-off pressure of 100Mpa. Other computer codes may give different values.