**Description**

Impact™ 30 & 50 are a mixture of fuel oil, ammonium nitrate prill, polystyrene and a creamy emulsion, which gives the explosive sticky, cohesive properties. Impact™ 30 & 50 are dry hole, primer sensitive explosives, which enable improved perimeter control. They are formulated to be oxygen balanced and primer sensitive.

The explosives have a granular appearance and are colour coded for identification.

**Application**

Impact™ 30 & 50 are suitable for use as a column charge in dry holes where improved perimeter control is required. The different Impact™ mixes are available so that the explosive energy can be selected to suit drill patterns, hole size and ground conditions. Impact™ is non-segregating and provides uniform distribution of charge. The ‘sticky’ consistency of Impact™ assists retention in upholes.

Impact™ 30 & 50 can be pneumatically loaded from pressure vessel type loading equipment; however the explosive is not suitable for use with non-pressurised types of pneumatic loading equipment.

Impact™ 30 & 50 are not suitable for ground containing reactive sulphides.

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**Technical Properties**

<table>
<thead>
<tr>
<th></th>
<th>Impact™ 50</th>
<th>Impact™ 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (g/cc) (1)</td>
<td>0.43</td>
<td>0.24</td>
</tr>
<tr>
<td>Loose Poured</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Blow Loaded</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Relative Effective Energy (Blow Loaded)**

<table>
<thead>
<tr>
<th></th>
<th>Impact™ 50</th>
<th>Impact™ 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Weight Strength</td>
<td>80%</td>
<td>56%</td>
</tr>
<tr>
<td>Relative Bulk Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• To ANFO @0.8g/cc</td>
<td>60%</td>
<td>28%</td>
</tr>
<tr>
<td>• To ANFO @0.95g/cc</td>
<td>45%</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Velocity of Detonation Range (km/s)**

<table>
<thead>
<tr>
<th></th>
<th>Impact™ 50</th>
<th>Impact™ 30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.2 – 3.9</td>
<td>2.1 – 3.1</td>
</tr>
</tbody>
</table>

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**Key Benefits**

1. Impact™ 30 & 50 packaged blasting agents can be used to generate smooth walls with minimum overbreak.
2. Impact™ 30 & 50 reduces ground control costs.
3. Impact™ 30 & 50’s ‘sticky’ consistency greatly assists retention of the explosive in upholes.
4. Impact™ 30 & 50 packaged blasting agent has reduced post-blast fumes that result in reduced turnaround times.
5. Impact™ 30 & 50 are factory blended; the ingredients do not segregate.

**Recommendations for Use**

**Blasthole Diameter**

The minimum recommended hole diameter for pneumatically loaded Impact™ 30 & 50 is 32mm and for free poured Impact™ 30 & 50 is 102mm.

**Blasthole Depth**

Impact™ 30 & 50 can be used in blastholes of any practical depth.
Impact™ 30 & 50

Priming and Initiation
Impact™ 30 & 50 can be reliably initiated by a Senatel™ packaged explosive cartridge, or a Pentex™ booster, in conjunction with an eDev™ detonator, uni tronic™ detonator, i-kon™ system detonator or electric No.8* or Exel™ detonator.

Use of detonating cord with Impact™ 30 & 50 is not recommended.

Charging
The recommended pressure for pneumatic loading of Impact™ 30 & 50 is 350-400 kPa.

Static Electricity
During pneumatic (blow) loading a build-up of static electricity can occur. Precautions such as the use of a semi-conductive loading hose (Lo-Stat) must be taken. The pneumatic loader must also be properly earthed. Pneumatic loading over bare detonators is not recommended.

Sleep-Time Within Blastholes
In dry blastholes the maximum recommended sleep time for Impact™ 30 & 50 is 30 days. However, sleep time is dependent on factors such as hole diameter, density, ground water conditions and initiation system.

An Orica Technical Representative should be consulted if special conditions exist.

Reactive Ground and Ground Temperature
Reactive Ground (4) – Impact™ 30 & 50 are not suitable for use in ground containing reactive sulphides.

Elevated Temperature (4) – Impact™ 30 & 50 are suitable for use in ground temperatures from 0°C to a maximum of 55°C.

If your application requires operation outside this temperature range, please contact your local Orica Technical Representative.

Packaging
Impact™ 50 is available in 12.5kg bags, and Impact™ 30 is available in 8kg bags.

Product Quality
Impact™ 30 & 50 is manufactured using an ISO9001 accredited quality process. Impact™ 30 & 50 has been developed by Orica Australia specifically for the mining industry using ISO9001 accredited research and engineering processes.

Storage and Handling

Product Classification
Authorised Name: Impact™ 30 / 50
Proper Shipping Name: Explosive, Blasting, Type B
UN No: 0082
Classification: 1.1D

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

Storage
Store Impact™ 30 & 50 in a magazine suitably licensed for Class 1.1D explosives. Impact™ 30 & 50 has a storage life of 6 months in stable, temperate conditions. However exposure to hot or cold extremes may cause the product to deteriorate prematurely.

Impact™ 30 & 50’s detonation behaviour remains constant, even after long storage, but it progressively dries out and will be less suited to uphole loading.

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 Representative for information on safe practices.

Safety
The post detonation fume characteristics of Impact™ 30 & 50 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.

Impact™ 30 & 50 can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, Impact™ 30 & 50 should be handled and stored with care.
Impact™ 30 & 50 must be kept clear of flame and excessive heat. Impact™ 30 & 50 is readily desensitised by water.

Explosives based on Ammonium Nitrate such as Impact™ 30 & 50 may react with sulphides in the ground and create potentially hazardous situations. Orica accepts no responsibility for any loss or liability arising from use of the product in ground containing sulphides or other reactive material.

More detailed product safety information can be found in the product Safety Data Sheet.

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Emergency Telephone Numbers
Within Australia: 1800 033 111
Outside Australia: +61 3 9663 2130

Notes:
1. Nominal Density Only.
2. REE is the Effective Energy relative to ANFO at a density of 0.8 g/cm³. ANFO has an effective energy of 2.30 MJ/kg. Energies quoted are based on ideal detonation calculations with a 100MPa cut-off pressure.
3. The actual VOD depends on the conditions of use including the diameter of the hole and the degree of confinement. The range quoted refers to unconfined minimum diameter up to calculated ideal VOD.