

Impact™ 30 & 50



Description

Impact™ 30 & 50 are dry hole, primer sensitive explosives, which enable improved perimeter control. The explosives have a granular appearance and are colour coded for identification. They are a mixture of fuel oil, Ammonium Nitrate prill, polystyrene and a creamy emulsion, which gives the explosive sticky, cohesive properties.

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.

Key Benefits

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

Technical Properties

Impact™ Product	Impact™ 50	Impact™ 30
Density (g/cc)		
Loose Poured	0.43	0.24
Blow Loaded ¹	0.6	0.4
Relative Effective Energy² Blow Loaded		
Relative Weight Strength	80%	56%
Relative Bulk Strength		
▪ to ANFO @ 0.8g/cc	60%	28%
▪ to ANFO @ 0.95g/cc	45%	21%
Velocity of Detonation Range³ (km/s)		
	Impact™ 50	Impact™ 30
	2.2 – 3.9	2.1 – 3.1
CO₂⁴ (kg/t)		
	Impact™ 50	Impact™ 30
Loose poured	181	238
Blow Loaded	180	226

Packaging

Impact™ 50 is available in 12.5kg bags, and Impact™ 30 is available in 8kg bags. Bulk sizes may be manufactured to order. Please contact your local Orca representative for information.

Recommendations For Use

Blasthole Diameter

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

Blasthole Depth

Impact™ can be used in holes of any practical depth.

Priming and Initiation

Either a Senatel™ packaged explosive cartridge or a Pentex™ booster, in conjunction with an Exel™ detonator can reliably initiate Impact™. Use of detonating cord to initiate Impact™ is not recommended.

Impact™ is not recommended for use in hot ground blasting applications. Orca offer a range of solutions for hot ground blasting - consult an Orca sales or technical representative for further information.

Charging

The recommended pressure for pneumatic loading of Impact™ is 350-400 kPa.

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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™* is 30 days. Sleep time is dependent on ground temperature and becomes shorter as temperature increases.

Storage And Handling

Explosives Classification

Authorised Name: *Impact™* 30 / 50
 Shipping Name: Explosive, Blasting, Type B
 UN No.: 0082
 Class: 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 have a storage life of 6 months in an approved magazine. *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 for safe disposal of explosives may vary depending on the user's situation. Please contact your local Orica representative for information on safe practices.

Safety

The post detonation fume characteristics of *Impact™* 30 & 50 make them 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 do not burn easily, but must be kept clear of flame and excessive heat.

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Disclaimer

Explosives based on Ammonium Nitrate such as *Impact™* may react with pyritic materials 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 pyritic or other reactive material.

All information contained in this data sheet is accurate and up-to-date as at the issue date specified below. Since Orica Australia cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. To the maximum extent permitted by law, Orica Australia will not be responsible for damages of any nature resulting from the use of or reliance upon the information in this data sheet. No express or implied warranties are given other than those implied mandatory by law.

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1. In-hole product characteristics will vary with changes in blasthole diameters, loading systems and pressures.
2. REE is the Effective Energy relative to ANFO at a density of 0.8g/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. Non-ideal detonation energies are also available on request. These take account of blasthole diameter, rock type and explosive reaction behaviour.
3. 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.
4. Carbon Dioxide is the main greenhouse gas produced. The output is calculated assuming ideal detonation.