

Apex™ Super 3000



Description

Apex™ Super 3000 is a high strength, robust, booster sensitive watergel explosive designed for surface and underground blasting. The explosive is white in color with a gelatin-like consistency.

Application

Apex™ Super 3000 is a large diameter, water resistant packaged watergel explosive designed as a medium density column explosive, for use in mining and general blasting work.

Key Benefits

- Apex™ Super 3000 has excellent hydrostatic pressure resistance making it suitable for deep, wet blastholes.
- The consistency of Apex™ Super 3000 allows the product to be cut to suit the specific application.
- Apex™ Super 3000 reduces post-blast fumes and improves turnaround time.
- Apex™ Super 3000 is highly water resistant, which minimizes leaching and reduces environmental impact.
- Apex™ Super 3000 is packaged in bullet-nosed chubs to promote simpler loading and handling.
- OH&S issues around the handling and storage of nitroglycerin are eliminated.
- Fume class 1 – suitable for underground use.

Recommendations for Use

Blasthole Depth

Apex™ Super 3000 is suitable for use in holes of any practical depth providing contained water does not exceed 48 m (157.5 ft.) depth.

Priming and Initiation

Apex™ Super 3000 is a booster sensitive watergel explosive and must be in direct contact with an appropriately sized Pentex™ booster that is 454 g (1 lb) or larger. Use of detonating cord with Apex™ Super 3000 is not recommended as it will reduce the energy of the explosive and may result in misfires.

Charging

Cartridges may be placed into blastholes intact or, where maximum energy is required, may be slit or cut prior to loading to achieve desired loading density. Care should be taken when loading slit or cut cartridges into wet blastholes as the explosive could bridge at the air-water interface.

Technical Properties

Apex™ Super 3000		
Cartridge Density		1.15 g/cc
Velocity of Detonation ¹		4,900 m/s 16,100 ft/s
Water Resistance		Excellent
Fume Class		1
Relative Effective Energy (REE) ²	Relative Weight Strength (RWS)	96
	Relative Bulk Strength (RBS)	132

Packaging

Apex™ Super 3000 is distinctively packaged in green plastic film, to clearly differentiate it from detonator sensitive packaged explosives. In large diameters, Apex™ Super 3000 is also available in white shot bags. Standard cartridge sizes are as follows:

Size		Weight	
75 x 400mm	3 x 16 in	2 kg	4.5 lb
90 x 400mm	3 ½ x 16 in	2.8 kg	6.1 lb
90 x 762mm	3 ½ x 30 in	5.5 kg	12 lb
125 x 762mm	5 x 30 in	10 kg	22 lb



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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. Apex™ Super 3000 will give good performance after two weeks immersion. Sleep times may vary depending on ground conditions.

Storage And Handling

Product Classification

Authorized Name: Apex™ Super 3000
 Proper Shipping Name: Explosive, blasting, type E
 Classification: 1.5D
 UN No: 0332
 Packing Group: II
 EX Number: 2002070076

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

Storage

Store Apex™ Super 3000 in a suitably licensed magazine for Class 1.5D explosives. The cases should be stacked in the manner designated on the case.

Apex™ Super 3000 has a **shelf life** of up to 2 years in an approved magazine, even in hot and humid extremes.

Apex™ Super 3000 is best stored at temperatures between 10-32°C (50-90°F). Do not expose Apex™ Super 3000 to temperatures greater than 40° C (104° F).

Transport

Apex™ Super 3000 should be transported between 10-32°C (50-90°F). Do not expose sealed containers to temperatures above 40°C (104°F).

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

Disposal

Disposal of explosives materials can be hazardous. Methods for safe disposal of explosives may vary depending on the user's situation. Please contact a local Orica representative for information on safe practices.

Safety

The post detonation fume characteristics of Apex™ Super 3000 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.

Apex™ Super 3000 can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, Apex™ Super 3000 should be handled and stored with care and must be kept clear of flame and excessive heat.

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consequential, or incidental damages without limitation, damages for lost or anticipated profits. Explosives based on

Ammonium Nitrate such as *Apex™ Super 3000* 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.

Orica Canada Inc.
301 Hotel De Ville
Brownsburg, QC J8G 3B5
Tel: +1 303 268 5000
Fax: +1 303 268 5250

Orica USA Inc.
33101 East Quincy Ave
Watkins, CO 80137
Tel: +1 303 268 5000
Fax: +1 303 268 5250

Emergency Contact 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**

For lost, stolen or misplaced explosives:

USA: BATFE **1-800-800-3855**. Form ATF F5400.0 must be completed and local authorities (state / municipal police, etc) must be advised.

Notes

1. Unconfined at 5°C (41°F). 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.