

Senatel™ Supercone / Senatel™ Minicone

Description

Senatel™ Supercone and Senatel™ Minicone are shaped charges designed for secondary blasting. The explosive charge is loaded into conical containers and when detonated they release a high-velocity stream (jet) of force that penetrates a formation.

Application

Senatel™ Supercone and Senatel™ Minicone are specialty products used in open pit and underground mines, quarries, and in prospecting applications.

Key Benefits

- Senatel™ Supercone and Senatel™ Minicone shaped charges have excellent adhesion to rock surfaces.
- Senatel™ Supercone and Senatel™ Minicone have an excellent shattering effect.
- Senatel™ Supercone and Senatel™ Minicone can reduce fly rock due to the focus of the charge.

Technical Properties

Senatel™ Supercone and Senatel™ Minicone		
Typical Velocity of Detonation ¹		4,500 m/s 14,700 ft/s
Water Resistance		Excellent
Fume Class		1
Relative Effective Energy (REE) ²	Relative Weight Strength (RWS)	89
	Relative Bulk Strength (RBS)	120

Packaging

Senatel™ Supercone and Senatel™ Minicone are packaged in rigid, smooth plastic cones. The rugged containers contain pre-measured charges. Units are packed into a 20 kg (44 lb) fiberboard cartons. Standard sizes are as follows:

	Weight / Unit	Units / Case
Senatel™ Minicone	0.9 kg (2.0 lb)	24
Senatel™ Supercone	1.7 kg (3.7 lb)	12

Recommendations for Use

Priming and Initiation

These products are not intended for use when their internal temperature is below -15°C (5°F). These charges can be initiated with the use of any appropriately sized detonating cord, or a detonator, or combination thereof.

Attach the built-in detonating cord initiator to a B-LINE™ trunk line with an appropriate knot.

Complete the B-LINE™ trunkline circuit and fire with a DCD detonator assembly.

Loading: Underground, as a pole charge:

1. Insert the pole into the Senatel™ Supercone and Senatel™ Minicone socket.
2. Tape the pole securely to the socket.
3. Attach the B-LINE™ to the built-in detonating cord initiator.
4. Remove the lid.
5. Tape the B-LINE™ to the pole at intervals.
6. Position the pole charge on the target.
7. Move all personnel to a safe place.
8. Attach DCD detonator to B-LINE™.
9. Fire from a safe location.

Loading: As a secondary blast charge:

1. Remove the lid and the plastic cover.
2. Press Senatel™ Supercone and Senatel™ Minicone explosives charge firmly onto the rock surface.
3. Attach B-LINE™ to the built-in detonating cord initiator.
4. Move all personnel to a safe place.
5. Attach DCD detonator to B-LINE™.
6. Fire from a safe location.

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Storage and Handling

Product Classification

Authorized Name:	Senatel™ Supercone and Senatel™ Minicone
Proper Shipping Name:	Explosive, blasting, type E
Classification:	1.1D
UN No:	0241
Packing Group:	II
EX Number:	1993110031

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

Storage

For best results, store at moderate temperatures above -5°C (23°F), and in dry conditions in a well-ventilated, approved, high explosives magazine.

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

Shelf Life

Senatel™ Supercone and Senatel™ Minicone have a **shelf life** of up to nine months from date of manufacture in a well ventilated, approved magazine.

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™ Supercone and Senatel™ Minicone should be transported between -15°C (5°F) and +30°C (86°F).

Disposal

Disposal of explosives materials can be hazardous. Methods for 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 Senatel™ Supercone and Senatel™ Minicone 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.

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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. 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. Unconfined at 5°C (41°F).
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.