

Innovex 100

SADC, South Africa, West Africa, Zambia

INNOVEX

Updated: June 1, 2023

Product * General Purpose	> Bulk Emulsion > Explosive > Straight	> Construction, Mining, Quarrying > Surface
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Product Description

Innovex 100 is a bulk pumped booster-sensitive gassed emulsion. Innovex 100 is a dual salt emulsion formulated with reprocessed oil and alternative fuels.



Application

Innovex 100 is designed for blasting applications in open pit mines, quarries, and construction with wet or dry holes. It is not for use in the presence of unprotected sulphide reactive ground or in elevated ground temperatures.

Primary Benefits

Innovex 100 may be loaded at varying densities to achieve energies that optimize fragmentation distribution and influence mine to mill productivity. The Innovex 100 dual salt formulation is a product demonstrated to generate very low levels of post blast NOx fume. The use of reprocessed oil in the fuel phase can contribute towards sustainability goals.

Technical Properties

Property	Unit	Base Emulsion	Gas Sensitized Emulsion	Gas Sensitized Emulsion	Gas Sensitized Emulsion	Gas Sensitized Emulsion
Cup Density	g/cm ³	1.46 to 1.50				
Average In-Hole Density	g/cm ³		1.10	1.15	1.20	1.25
Velocity of Detonation	m/sec		4905	5095	5285	5470
Relative Weight Strength	RWS		75	78	84	87
Relative Bulk Strength	RBS		103	112	126	137
Bulk Energy	cal/g				695	693
Volumetric Energy	cal/cm ³				827	867
Minimum Hole Diameter	mm		64	64	64	64
Water Resistance			Excellent	Excellent	Excellent	Excellent

Velocity of Detonation, Relative Weight and Bulk Strengths calculated using the IPX code at a density of 1.20 g/cm³ and a cut-off pressure of 100 MPa relative to ANFO at a density of 0.80 g/cm³.

Actual in field velocity of detonation will vary and is dependent on hole diameter and confinement.

Bulk and Volumetric Energies measurements made by underwater bubble energy tests at UTEC labs.

Guidelines for Use

Priming and Initiation

Hole Diameter	Minimum Cast Booster Mass
64 mm to 127 mm	150 g
Greater than 127 mm	400 g

Innovex 100 is compatible with most non-electric and electronic detonator systems.

Use of detonating cord with Innovex 100 may influence blast outcomes.

Blasthole Charge Length, Hole Diameter and Density Relationships

Maximum hole depth depends on product selection, hole diameter, product densities, critical void space and the presence of water. Please contact a BME Technical Representative for additional guidance and site specific calculations using BME's DensDepth program.

Ground Temperature

This product may be used in ground temperatures from 0° to a maximum of 70°C. If the application requires use outside this temperature range please contact a BME Technical Representative for additional guidance.

Reactive Ground

This product is not formulated for use in reactive ground. Reactive ground is typically characterised by the presence of sulphide mineralization. If the application requires use in known reactive ground, or in untested sulphide bearing ground, please contact a BME Technical Representative for additional guidance.

Sleep Time

The recommended maximum sleep time is 21 days. Sleep time is dependent on factors such as hole diameter, density, ground water conditions and initiation system. If the application requires longer in-hole sleep time, please consult with a BME Technical Representative for guidance.

Handling and Storage

The storage life for Innovex 100 base emulsion is typically up to 6 months under good storage conditions. Please consult with a BME Technical Representative for site specific storage life guidance.

UN Classification for Transportation and Storage

Product Classification of System Components

Authorised Name: INNOVEX 100 - Base Emulsion
 Correct Shipping Name: AMMONIUM NITRATE EMULSION
 Classification: 5.1
 UN Number: 3375

Authorised Name: INNOVEX Sensitizing Agent
 Correct Shipping Name: NITRITES, ORGANIC, AQUEOUS SOLUTION, N.O.S.
 Classification: 5.1
 UN Number: 3219

Product Classification of Finished Sensitized Explosive Product

Authorised Name: INNOVEX 100
 Correct Shipping Name: EXPLOSIVE, BLASTING
 Classification: 1.1D
 UN Number: 0241

Safe Use

- Never fight explosive fires.
- Refer to Safety Data Sheet (SDS) for first aid information.
- All explosives must be transported and stored in accordance to relevant regulations.
- All explosives are classified as dangerous goods and may cause damage to property, personal harm, or death, if not used correctly.
- Always keep products away from sources of heat, sparks, flame or hot surfaces and avoid mixing with combustibles or incompatible materials.

In case of emergencies, [click here](#) or contact your BME representative for assistance.

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