

Eurodyn™ 2000

Description

Eurodyn™ 2000 explosive dynamite is a nitroglycol based, high strength, detonator sensitive explosive.



The explosive is red in colour with a firm putty-like consistency.

Application

Eurodyn™ 2000 can be used in priming applications and as a high-density column explosive. Eurodyn™ 2000 delivers exceptional results in hard rock applications.

Eurodyn™ 2000 is designed for use in surface mining, quarrying and construction, tunnelling and underground blasting.

Key Benefits

- Eurodyn™ 2000 is a high energy explosive dynamite with excellent energy transmission qualities for outstanding blast results in the toughest ground.
- Eurodyn™ 2000 is suitable for use in confined blasting and underwater applications.
- Eurodyn™ 2000 is highly water resistant, which minimises leaching and reduces environmental impact.
- Eurodyn™ 2000 contains no aromatic nitro compounds (DNT and TNT), which are considered to be carcinogenic.

Recommendations for Use

Blasthole Depth

Eurodyn™ 2000 is suitable for use in holes of any practical depth providing contained water does not exceed 30 m depth.

Priming and Initiation

An Exel™ or i-kon™ detonator can reliably initiate Eurodyn™ 2000. If ignited with a Cordtex™ detonating cord, the cord must have a minimum filling weight

of 6 g PETN/m and be led over the entire length of the charging pillar.

Charging

In small diameter blastholes maximum energy per metre of blasthole can be achieved by tamping the explosive with a wooden tamping rod appropriate to the hole diameter. No metal instrument should be used to tamp explosives. The primer cartridge containing a detonator must not be tamped.

Technical Properties

Product	Eurodyn™ 2000
Density (g/cm ³) ⁽¹⁾	1.4
Minimum Cartridge Diameter (mm)	22
Hole Type	Wet and Dry
Typical VOD (m/s) ⁽²⁾	6200 ±200
Explosion Heat (kJ/kg)	4509
Relative Effective Energy (REE) ⁽³⁾	
Relative Weight Strength (%)	145
Relative Bulk Strength (%)	254
CO ₂ Output (kg/t) ⁽⁴⁾	258
Gas volume (l/kg)	897

Sleep Time within Blastholes

In dry blastholes, given the explosives packaging is undamaged; Eurodyn™ 2000 may be charged and fired several months later. If the explosives packaging is damaged, the sleep-time in a blasthole is influenced by the extent of damage to the packaging and by the nature of any water present.

Ground Temperature

These products are available for use in ground temperatures -20 °C to a maximum of 50 °C. If your application requires you to operate outside this temperature range, please contact your local Orica Account Manager.

Packaging

Eurodyn™ 2000 is paper wrapped or packaged in clear film, differentiating it from other packaged explosives.

Standard cartridge sizes are as follows:

Diameter (mm)	Nominal Length (mm)	Nominal Mass (g)	NEM (g)	Nominal count per case	Box content (kg)
Paper wrapped					
22	180	93	88	270	25
25	180	125	120	200	25
25	380	250	239	100	25
30	180	180	173	140	25
30	380	400	386	60	24
35	380	500	484	50	25
40	380	625	607	40	25

Dia- meter (mm)	Nominal Length (mm)	Nominal Mass (g)	NEM (g)	Nominal count per case	Box content (kg)
Clear film					
45	540	1042	1028	24	25
50	540	1560	1544	16	25
55	560	1923	1914	13	25
60	540	2083	2065	12	25
65	500	2500	2481	10	25
75	540	3125	3101	8	25
85	540	4167	4141	6	25

Delivery item

Storage and Handling

Product Classification

Authorised Name: Eurodyn™ 2000
 Proper Shipping Name: Explosive, Blasting
 Type A
 UN No.: 0081
 Classification: 1.1D
 EC Type Certificate: 0080.EXP.97.0145

All regulations on the handling and use of such explosives apply.

Storage

Store Eurodyn™ 2000 in a suitably licensed magazine for Class 1.1D explosives. The cases should be stacked in the manner designated on the cases.

Eurodyn™ 2000 is best stored at temperatures between -20 °C and +50 °C. This is especially important in cold weather "load and shoot" worksites where there is insufficient inhole warm-up time.

When Eurodyn™ 2000 is handled and stored according to instructions, the functionality is guaranteed two years from manufacturing date. The shelf life shortens in humid and warm (>25 °C) conditions. As Eurodyn™ 2000 ages its detonation velocity decreases, but it is still always higher than 2000 m/s.

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 Eurodyn™ 2000 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.

Eurodyn™ 2000 can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, Eurodyn™ 2000 should be handled and stored with care and must be kept clear of flame and excessive heat.

Not for mines with a danger of fire damp or coal dust explosion.

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Notes:

1. Nominal Density Only.
2. 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.
3. 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 100 MPa cut off pressure. Non-ideal detonation energies are also available on request. These take account of blasthole diameter, rock type and explosive reaction behaviour.
4. Carbon Dioxide is the main greenhouse gas produced. The output is calculated assuming ideal detonation.