### **TECHNICAL DATA SHEET**

# Eurodyn<sup>™</sup> 2000



#### Description

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

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

#### **Key Benefits**

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

## Recommendations for Use Blasthole Depth

Eurodyn<sup>™</sup> 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<sup>™</sup> or i-kon<sup>™</sup> detonator can reliably initiate Eurodyn<sup>™</sup> 2000. If ignited with a Cordtex<sup>™</sup> 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 <sup>3</sup> ) <sup>(1)</sup>	1.4			
Minimum Cartridge Diameter (mm)	22			
Hole Type	Wet and Dry			
Typical VOD (m/s) <sup>(2)</sup>	6200 ±200			
Explosion Heat (kJ/kg)	4509			
Relative Effective Energy (REE) <sup>(3)</sup>				
Relative Weight Strength (%)	145			
Relative Bulk Strength (%)	254			
CO <sub>2</sub> Output (kg/t) <sup>(4)</sup>	258			
Gas volume (l/kg)	897			

#### **Sleep Time within Blastholes**

In dry blastholes, given the explosives packaging is undamaged; Eurodyn<sup>™</sup> 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<sup>™</sup> 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 (q)	NEM	Nominal count per case	Box content (ka)
25	150	100	95	250	25
70	380	2080	2064	12	25
70		2000	2004	12	20

Other dimensions are also available according to the customer request.

#### 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.



2018-03-26 Page 1 of 2



orica.com

Eurodyn™	2000
UK	

#### Storage

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

Eurodyn<sup>™</sup> 2000 is best stored at temperatures between 0 °C +50 °C. This is especially important in cold weather "load and shoot" worksites where there is insufficient inhole warmup time.

When Eurodyn<sup>™</sup> 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<sup>™</sup> 2000 ages its detonation velocity decreases, but it is still always higher than 2000 m/s.

#### Transport

Eurodyn<sup>TM</sup> 2000 should be transported between 0 °C and +50 °C.

#### 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<sup>™</sup> 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<sup>™</sup> 2000 can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, Eurodyn<sup>™</sup> 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.

#### Disclaimer

© 2014 Orica Group. All rights reserved. All information contained in this document is provided for informational purposes only and is subject to change without notice. Since the Orica Group 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, the Orica Group specifically disclaims all warranties express or implied in law, including accuracy, non-infringement, and implied warranties of merchantability or fitness for a particular purpose. The Orica Group specifically disclaims, and will not be responsible for, any liability or damages resulting from the use or reliance upon the information in this document.

The word Orica and the Ring device are trademarks of the Orica Group.

Orica UK Limited North Quarry Business Park Skull House Lane Appley Bridge Wigan WN6 9DL UK Phone: +44 (0) 1257 256100 Fax: +44 (0) 1257 255670 Customer Service: +44 (0) 1925 767679

#### **Emergency Telephone Number**

Within UK: 01928 572000 Outside UK: +44 (0) 1928 572000

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/cm<sup>3</sup>. 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.



2018-03-26 Page 2 of 2



orica.com