

Exan™ & Exan™ E Packaged ANFO

Description

Exan™ is a series of porous prilled Ammonium Nitrate based packaged explosives formulated for a range of blasting applications. Exan™ E is formulated for increased bulk strength. The Exan™ range is not suited for use in reactive environments.

Application

The Exan™ is suitable for use where the blastholes are dry and will remain dry until firing. The Exan™ E is suitable for surface blasting where the blastholes can be successfully dewatered and loaded immediately after. Exan™ can be used as a column charge in open cut mining, quarrying and for general blasting. The Exan™ range can be loose poured or pneumatically (blow) loaded into blastholes.

Key Benefits

- Exan™ is reliable and easy to use, providing consistent results.
- Exan™ is a cost-effective explosive for dry hole blasting applications.
- The Exan™ E has been developed for greater water resistance over other Exan™ products.
- Exan™ provides fully coupled explosive charges to maximise blasting outcomes.
- The Exan™ can be pneumatically loaded to increase explosive density, and to enable small blastholes to be loaded quickly and efficiently.

Recommendation for Use Blasthole Diameter

The minimum recommended hole diameter for Exan™ is 38 mm.

Blasthole Depth

Exan™ can be used in holes of any practical depth.

Technical Properties

Product	Exan™	Exan™ E
Density (g/cm ³) ⁽¹⁾	0,85	0,83
Minimum Blasthole Diameter (mm) ⁽²⁾	38	
Hole Type	Dry	Dewatered
Typical VOD (m/s) ⁽³⁾	2500 - 3500	>2.400
Relative Effective Energy (REE) ⁽⁴⁾		
Relative Weight Strength (%)	100	98
Relative Bulk Strength (%)	104	102
CO ₂ Output (kg/t) ⁽⁵⁾	178	246
Oil type	Distillates (petroleum), hydrotreated light	
Sleep time (d)	After being charged	Same day

Priming and Initiation

A Pentex™ primer or a packaged explosive of the largest possible diameter is recommended for the reliable initiation of Exan™ in conjunction with an Exel™ or i-kon™ detonator. The use of detonating cord with Exan™ is not recommended.

Charging

The recommended pressure for pneumatic loading of Exan™ is 3.5 - 4.0 bar (350 – 400 kPa). During pneumatic loading, a build-up of static electricity can occur. Precautions such as the use of a semi-conductive loading hose must be taken. The pneumatic loader must also be properly earthed. Pneumatic loading over bare detonators is not recommended. Never load Exan™ into wet blastholes.

Sleep Time within Blastholes

Exan™: The Exan™ series should be fired as soon as practicable after charging to achieve the best blasting results.

Exan™ E: Same day.

Ground Temperature

These products are available for use in ground temperatures - 25 °C to a maximum of +55 °C. If your application requires you to operate outside this temperature range, please contact your DEXPLOC Representative.

Packaging

DEXPLOC A/S

Exan™ is packaged in bags coloured to differentiate each product type. See table below for package weight and colour. Contact your DEXPLOC representative for further information.

Product	Exan™			Exan™ E
Net weight (kg)	25	400	700	25
Net weight, pallet (kg)	1000	400	700	1000
Colour	White			Violet

Exan™ bags have a handle on top of the bags.

Storage and Handling

Product Classification

Country	Authorised Name	EC Type Certificate
SE	Exan™	EXP 1395-010/2019
	Exan™ E	EXP 1395-010/2019

Proper Shipping Name: Explosive, Type B

UN No.: 0082

Classification: 1.1D

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

Storage

Store Exan™ in a suitably licensed magazine for Class 1.1D explosives. Exan™ has a storage life of 6 months in stable, temperate conditions.

Extreme changes in temperature, which cause Exan™ to cycle through -25 °C or +32 °C, will reduce its shelf life, and make it lumpy and hard to handle.

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 DEXPLOC representative for information on safe practices.

Safety

The post detonation fume characteristics of Exan™ make it suitable for both underground and surface blasting applications. Exan™ E is suitable for surface blasting only. Users should ensure that adequate ventilation is provided prior to re-entry into the blast area. When pneumatically loading Exan™ a dust mask should be worn to prevent exposure to aluminium dust.

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

Explosives based on Ammonium Nitrate such as Exan™ may react with pyretic materials in the ground and create potentially hazardous situations. DEXPLOC accepts no responsibility for any loss

or liability arising from use of the product in ground containing pyretic or other reactive material.

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

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Notes:

1. Nominal Density Only.
2. Contact your DEXPLOC Representative for further advice on loading at minimum hole diameters.
3. 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.
4. 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.
5. Carbon Dioxide is the main greenhouse gas produced. The output is calculated assuming ideal detonation.