



# PRODUCT INFORMATION

## BROCHURE

1.1D

# EMULEX 1



**Emulex 1** is a detonator sensitive emulsion that has an excellent combination of velocity of detonation and good properties for gas generation. Widely used in mining, quarries and construction works. Suitable for use as a column load or bottom charge.

Emulex 1 is also suitable for tunneling applications and for use as booster for less sensitive explosives such as blasting agents (E.g. ANFO).

## PRODUCT OVERVIEW

### PROPERTIES

Nominal density [g/cm <sup>3</sup> ]	1.20
Oxygen balance [%] <sup>(1)</sup>	+2.0
Gas volume [L/kg] <sup>(1)</sup>	991
Heat of explosion [kJ/kg] <sup>(1)</sup>	3,041
RWS [ANFO=100]	83
RBS [ANFO=0.82 g/cm <sup>3</sup> ]	111
Nominal VOD [m/s] <sup>(2)</sup> (unconfined)	4,500 (Ø < 50mm) <sup>(3)</sup> 5,000 (Ø ≥ 50mm) <sup>(3)</sup>

Notes:

<sup>(1)</sup> Energy values are calculated using Explo 5, a thermo-dynamic computer code employed by Austin Powder Company. Other computer codes may give different values.

<sup>(2)</sup> The velocity of detonation will depend on application, diameter and confinement.

<sup>(3)</sup> Value obtained starting with detonator with base load of 400 mg of PETN.

### BENEFITS

- High energy allows an extended drilling pattern for more economical blasting cost.
- Develops excellent gas volume for heave displacement.
- Low amount of toxic fumes.
- Excellent water resistance.
- Good handling due to stiff cartridges.
- Good borehole coupling when the diameter of product applied is matched to the dimensions of the blast hole.

## STANDARD PACKAGING

Cartridge size [mm]	Cartridge / Box Units	Net weight box (± 3%) [kg]	Gross box weight (± 3%) [kg]
50 x 500	21	25.0	26.2
60 x 500	15		
70 x 500	11		
80 x 500	8		

Notes: Other sizes are available on request.

## USE

- Lower temperature limit -20 °C
- Upper temperature limit +60 °C
- Minimum detonator 0.64 g PETN or detonator of comparable strength
- Do not initiate with detonating cord
- Maximum static overpressure 0,3 MPa (3 bar) for 24 hours.
- Not for use in hazardous environments where flammable gases or dust may exist.
- Austin accepts no responsibility for any loss or liability arising from use of the product in ground containing pyritic or other reactive material
- Do not cut or squeeze cartridges when loading

## SHELF LIFE, STORAGE & DISPOSAL

- Shelf life is 12 (twelve) months from the date of manufacture.
- This product must be stored in magazines for high explosives. These magazines must meet the current legal requirements.
- In case of presenting the following condition, do not guaranteed the shelf life:
  - Lower temperature limit 0 °C (the storage will be only for 3 months if the temperature is constant, by down 0 °C until -10 °C)
  - Maximum temperature storage 30 °C (the storage will be only for 3 months if the temperature is constant, by above 30 °C)
- Disposal: In accordance with local and national legal requirements. In doubt contact your supplier or the manufacturer.

Contact your local Austin Powder representative for further information.

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## TRANSPORT – UN CLASSIFICATION

Shipping Name: EXPLOSIVE, BLASTING, TYPE E.  
 Class & Division: 1.1D  
 ID Number: UN 0241



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**Our Mission is to improve the world we live in through the safe and responsible use of explosives.**