

# Powermite® Max

## Cartridge Product

### Technical Information



### Description

Powermite Max is a detonator sensitive emulsion explosive, packaged in plastic film cartridges.

### Application

Powermite Max is formulated as a high energy explosive for use in hard blasting conditions. This product has also demonstrated excellent performance in “lifter holes” in underground mining operations. It may be used as a primer of ANFO, Heavy ANFO and ANFO PS in small diameter boreholes.

### Dangerous Goods Classification

**Product Name:** Powermite Max  
**Correct Shipping Name:** Explosive, Blasting, Type E  
**UN Number:** 0241  
**DG Class:** 1.1D



### Properties

Nominal Density (g/cm <sup>3</sup> ) <sup>1</sup>	1.10 ± 0.05 gm/cc
Energy (MJ/kg) <sup>2</sup>	3.2 MJ/kg
Typical VOD (m/s) <sup>3</sup>	4500 m/s
Relative Weight Strength % <sup>4</sup>	86
Relative Bulk Strength % <sup>5</sup>	115
Water Resistance	Excellent

#### NOTES:

1. Values are indicative average densities only, determined under laboratory conditions by Dyno Nobel technical personnel at Dyno Nobel's Mt Thorley Technical Centre. Observed densities may differ or vary under field conditions. Nominal in hole density only.
2. All Dyno Nobel energy values are calculated using a proprietary Dyno Nobel thermodynamic code – Prodet. Other programs may give different values.
3. These results represent a range of VODs collected from numerous Dyno Nobel blast sites throughout the Asia Pacific region over a period of time. The velocity of detonation actually recorded in use is dependent upon many factors, including: the initiation system used, the product density, blast-hole diameter and ground confinement. The values stated are typical of those recorded for the product in various hole diameters, densities and ground types, and may not be achievable under all circumstances.
4. Relative Weight Strength (RWS) and Relative Bulk Strength (RBS) are determined using a density of 0.82g/cm<sup>3</sup> and an energy of 3.7MJ/kg for ANFO.
5. RBS depends on the final density of the product at the time of loading.

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### Recommendations

**Priming requirements** - Powermite Max is formulated to be sensitive to a No. 8 strength detonator. The preferred method of initiation is via the NONEL® system. When inserting the detonator into cartridge always use an appropriate pricker, not the detonator, to break the plastic film.

**Temperature range** - Suitable for use in temperatures ranging from 0° to 50° C. For applications in ground temperatures outside this range, contact your Dyno Nobel representative.

**Sleep time** - The sleep time of Powermite Max will be limited to the recommended sleep time of the explosive it is priming or that of the initiation system.

**Shelf life** - Powermite Max products have a recommended shelf life of one (1) year when transported and stored under ideal conditions.

### Packaging

Powermite Max	Cart weight (kg)	Nominal cartridges per case
32mm x 220mm	24kg	120
32mm x 700mm	25kg	38
65mm x 400mm	24kg	16
80mm x 355mm	24kg	12

### Safe handling, transportation and storage

**First Aid** – You can find detailed first aid information on the relevant Dyno Nobel Material Safety Data Sheet. Refer to [www.dynonobel.com](http://www.dynonobel.com) for more information if required.

**Safety** - All explosives are classified as dangerous goods and can cause personal injury and damage to property if used incorrectly.

**Transportation and Storage** - All explosives must be handled, transported and stored in accordance with all relevant regulations. Stock should be rotated such that older product is used first.

Remember, the explosive products discussed in this document should only be handled by persons with the appropriate technical skills, training and licences.

While Dyno Nobel has made every effort to ensure the information in this document is correct, every user is responsible for understanding the safe and correct use of the products. If you need specific technical advice or have any questions, you should contact your Dyno Nobel representative.

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