

# HEF 100™

## High energy bulk emulsion

### Product description

HEF 100™ is a booster sensitive Bulk Emulsion designed for opencast mines. HEF 100™ is a low viscosity black emulsion specially formulated using re-cycled oil/ alternative fuel. It is sensitised to a cup density of 0.9 – 1.2 g/cm<sup>3</sup> by using a suitable sensitising agent. HEF 60™ and HEF 70™ are derivatives of HEF100™ specifically for use in BME's blended emulsions (HEF 206™ and HEF 207™).

HEF 100™ formulations are available for reactive ground conditions.



Product	Water resistance	Nominal bulk density (g/cm <sup>3</sup> )	Relative bulk strength	Relative weight strength
HEF 100™	Excellent	1.46 – 1.50	118	75

Calculated at a density of 1.2 g/cm<sup>3</sup> and a pressure of 20 mpa. Relative to ANFO™ at a density of 0.8 g/cm<sup>3</sup>.

### Application

HEF 100™ is designed for blasting in open cast mines.

### Features

- **Minimum initiation** – 150 g Booster-sensitive when sensitised for holes having a diameter of 127 mm and less. Holes with a diameter larger than 127 mm and a depth greater than 6 m require a 400 g booster
- **VOD** – 3500 – 5500 m/s, dependant on hole and rock characteristics
- **Critical diameter** – 64 mm
- **Sensitisation** – The emulsion can be sensitised between 0.95 – 1.25 g/cm<sup>3</sup> using the recommended sensitising agent
- Excellent water resistance

### Recommendations

- **Shelf life** – 3-6 months when stored under recommended storage conditions
- **Sleep life** – 21 days in the hole
- **First aid** – refer to Material Safety Data Sheet for first aid information
- **Safety** – all explosives are classified as dangerous goods and can cause death, personal harm or damage to property if not used correctly
- **Transportation and storage** – all explosives must be transported and stored in accordance with relevant regulations

### Packaging

- This emulsion is transported and stored as a bulk product.

### Product risk profile

- Classified as hazardous substance, Division 5.1: oxidizing substances
- Non detonable in the non-sensitised, unconfined bulk form
- Will not readily burn on its own, but if subjected to extreme external heat for a period of time water may be driven off resulting in an explosion risk
- **DO NOT ATTEMPT TO FIGHT AN EXPLOSIVES FIRE**

### UN classification (Transport)

- i. Base Emulsion: Class 5.1, UN No. 3375, OXIDIZING MATERIAL
- ii. Sensitising Agent: Class 5.1, UN No. 3099, OXIDIZING LIQUID, TOXIC, N.O.S.