



# DAYAGEL PERMITTED

Detonator sensitive  
emulsion explosives  
for underground coal mining



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# DAYAGEL PERMITTED



## “Serving Your Company Better”



### DESCRIPTION

Dayagel Permitted is a detonator sensitive emulsion explosives, P1 permitted designed for application in underground coal mining.

### SAFETY

Because of the intimate nature of mixing of the ingredients in DAYAGEL PERMITTED, the explosives is extremely efficient which results in lower fume levels than nitroglycerine based or watergel explosives. This makes DAYAGEL PERMITTED well suited to underground coal mining blasting situations.

Users should note however that verification standards must be maintained and that personnel must not re-enter the mine workings until the required level of ventilation has been reached.

DAYAGEL PERMITTED has very low mechanical impact sensitivity.

If exposed to fire, DAYAGEL PERMITTED will self extinguish unless a vigorous external source of heat is applied.

Whilst DAYAGEL PERMITTED does not burn easily it should be kept clear of flame or excessive heat.

If DAYAGEL PERMITTED remnants are to be destroyed by burning, advice on the correct method should be sought from DAHANA's Explosives Technical Specialists or from the local explosives statutory authority.

### APPLICATION

Due to its greater water resistance, DAYAGEL PERMITTED is particularly suitable in wet conditions where the explosive may be exposed to water for many hours before the blast is fired.

### RECOMMENDATIONS FOR USE

**Water Resistance**  
While the explosives may not normally be

subject to prolonged exposure to watertests indicate that in static water conditions it is unaffected after 1 month of immersion.

### Priming

The recommended initiator for DAYAGEL PERMITTED is a No. 8 strength Permitted detonator.

### Detonating Cords

The use of detonating cords is forbidden in underground coal mining applications.

### Dynamic Pressure Resistance

Although DAYAGEL PERMITTED has good pressure resistance to desensitization from earlier firing charges, there may be ground conditions such as cleats, clay banding, bedding or ground saturated by water which on occasion causes dynamic desensitization of microballoon sensitized explosives.

Operators should design blast rounds to avoid situations where the distance between consecutive delays firing is small enough to result in dynamic desensitization of the later firing explosives cartridge.

Often it is possible to drill additional uncharged blastholes between the charged blastholes to provide both additional relief and shielding from the shock of the earlier firing explosives. Where doubt exists regarding successful application of DAYAGEL PERMITTED please consult with a DAHANA's Explosives Technical Specialists who may be contacted through DAHANA Offices.

### PACKAGING

The DAYAGEL PERMITTED cartridges are manufactured in two standard package sizes.

### STORAGE AND HANDLING

The cases should be stacked in the manner designated on the cases by "This Side Up".

Store DAYAGEL PERMITTED in well ventilated magazine suitably licensed for Class 1.1 D Explosives.

DAYAGEL PERMITTED has a storage life in excess of 12 months in an approved magazine even hot or humid extremes.

As with other emulsion explosives, the shelf life will be dependent on the ability of the emulsion to retain detonator sensitivity. In time the sensitivity will drop below detonator sensitive and will become primer sensitive. If primed by a primer or a fresh cartridge of emulsion explosive, ageing cartridges of explosives well beyond the nominated shelf life may still detonate with full energy.

DAHANA's Explosives Technical Specialists should be consulted in the event of uncertainty as to product condition and/or performance.



PACKAGING		
Diameter (mm)	25	32
Length (mm)	200	200
Mass (gm)	133	200
Cartridges per Case	150	100

TECHNICAL PROPERTIES	
Energy@ operating density 1,16g/cm <sup>3</sup>	
Calculated Available Energy	2.8 MJ/Kg
- REE* - Weight Strength (relative to ANFO = 100% @ 0.8 g/cc)	80 %
- REE* - Bulk Strength (relative to ANFO = 100% @ 0.8 g/cc)	80 %

\*The "Relative Effective Energy" (REE) of an explosive is the energy calculated to do effective blasting work.

### Velocity Of Detonation

Unconfined in 37 mm diameter at 10°C = 4.8 - 5.2 km/sec

### Fume Characteristic

Product is oxygen balanced and suitable for underground use

### RECOMMENDATIONS FOR USE

#### Water Resistance

While the explosives may not normally be subject to prolonged exposure to water, test indicate that in static water conditions it is unaffected after 1 month of immersion.

### DISCLAIMER

All information contained in this Data Sheet is as accurate and as up to date as possible. Since DAHANA 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. DAHANA will not be responsible for damage of any nature resulting from the use of or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Government.