



PrimeX 3000 Gassed Blend

Description

PrimeX 3000 gassed emulsion blends are water resistant bulk explosives, designed to be pumped from a bulk delivery truck through a loading hose to the bottom of the blast hole. The PrimeX 3000 emulsion has been developed for wet hole blasting conditions in small to medium diameter open cut mining. PrimeX 3000 can be used as a 100% emulsion product, or blended with up to 40% ANFO by weight for use in wet holes.

Advantages

The PrimeX 3000 emulsion has been specifically developed for severe wet hole blasting conditions in small diameter open cut mining. The flexibility in the final gassed density of the product, together with the appropriate ANFO content allow optimisation of the bulk strength, explosive distribution and gas volume of the product, to meet blast performance requirement sin different ground conditions.

Notes

1. In hole gassed density is dependant on hole depth.
2. All Prime Explosives energy values are calculated using a proprietary Dyno Nobel thermodynamic code – Prodet. Other programs may give different values.
3. Water Resistance determined using laboratory testing methods.
4. For Non-reactive ground.
5. RWS and RBS determined using a density of 0.82g/cc and an energy of 3.7MJ/kg for ANFO.
6. VOD recorded using a continuous VOD method, in confined conditions. VOD for non-ideal explosives is a function of borehole diameter, product density and confinement conditions. These figures are indicative only and represent the unconfined conditions used in the test. Typically the product will shoot at higher VODs as the borehole diameter and confinement increase.

Properties

Property	PrimeX 3000G	PrimeX 3090G	PrimeX 3080G	PrimeX 3070G	PrimeX 3060G
Density (g/cc) ¹	1.05-1.25	1.05-1.25	1.05-1.25	1.05-1.25	1.05-1.25
Rec. Min. Diam (mm)	76mm	76mm	76mm	76mm	89mm
Energy (MJ/kg) ²	2.7	2.8	2.9	3.0	3.1
Water Resistance ³	Excellent	Excellent	Excellent	Excellent	Good
Rec. Sleep Time ⁴	12 days	12 days	12 days	12 days	12 days
RWS ⁵	0.74	0.77	0.79	0.82	0.84
RBS (1.05g/cc) ⁵	.95	.98	1.01	1.05	1.08
RBS (1.15g/cc) ⁵	1.04	1.07	1.11	1.15	1.18
RBS (1.25g/cc) ⁵	1.13	1.17	1.21	1.25	1.29

Typical Velocities of Detonation

Product	Hole Diameter (mm)	Density (g/cc)	Booster	VOD (m/s)
PrimeX 3070G	89	1.12	HDP400	4600 ⁶
PrimeX 3070G	89	1.15	HDP 400	4250 ⁶
PrimeX 3070G	89	1.05	HDP 400	4000 ⁶

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Recommendations

Priming Requirements – PrimeX 3000 emulsion blends are formulated to be booster sensitive and require a minimum HDP 150 (150gram) primer. Smaller booster types may reduce the performance of the explosive. Additional boosters should be used when the column height exceeds 10 to 15 metres, or where there is risk of column disruption. Detonating cord downlines are not recommended.

Shelf Life – PrimeX 3000 emulsion matrix has a minimum shelf life of three (3) months, when transported and stored under ideal conditions.

Sleep Time – For applications where unusual or specific conditions exist please consult your Prime Explosives representative.

Reactive Ground Conditions – PrimeX 3000 emulsion blends are not designed for use in reactive (pyritic) ground conditions. For applications in reactive ground conditions please consult your local Prime Explosives representative.

Ground Temperature – PrimeX 3000 emulsion blends are suitable for use in ground with a temperature of 0°C to a maximum of 55°C.

Dangerous Goods Classification

Product Name:	PrimeX 3000 Gassed Blends
Correct Shipping Name:	Explosive, Blasting, Type E
UN Number:	0241
DG Class:	1.1D

Safe handling, transportation & storage

First Aid – Detailed first aid information regarding this product is contained on the relevant Material Safety Data Sheet.

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.

The information and suggestions contained in this document concern explosive products that should only be dealt with by persons having the appropriate technical skills, training and licence. The results obtained from the use of such products depend to a large degree on the conditions under which the products are stored, transported and used.

While Prime Explosives makes every effort to ensure the details contained in the document are as accurate as possible, the conditions under which the products are used are not within its control. Each user is responsible for being aware of the details in the document and the product applications in the specific content of the intended use. If technical advice is required in the specific application of the products then you should contact Prime Explosives for assistance.

Prime Explosives makes no warranties in relation to the products it sells other than those implied by law. Except to the extent determined by law, Prime Explosives bears no risk, responsibility or liability arising from the use of the products and the information in this document by the buyer or use of the products.

VERSION No1 – September 09

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