TITAN® BlastLite®

Low Density Explosive Series

Technical Information

Description

TITAN BlastLite blends are comprised of blends of ANFO manufactured using porous prill (Detaprill®), TITAN emulsion and brown fibrous bulking agent. The low density products are for use in dry or dewatered holes, and are delivered as augered products from a Quad bulk delivery truck.

TITAN BlastLite blends are used as a Heavy ANFO replacement in soft to medium strength rock masses. TITAN BlastLite blends may be used only in dry or dewatered blastholes in non-reactive ground.

Advantages

TITAN BlastLite blends are useful where heave energy is preferable to shock energy. The lower emulsion component in TITAN BlastLite 30 provides a lower relative bulk strength than ANFO, optimising blasting in soft rock. TITAN BlastLite blends have a lower velocity of detonation than ANFO in similar blast hole diameters.

Properties

Property	Titan BlastLite 30	Titan BlastLite 55
Density (g/cm³) [1]	0.85	1.15
Rec. Min. Diam. (mm)	152	152
Energy (MJ/kg) [2]	3.06	2.80
Water Resistance [3]	Nil	Nil
Rec. Sleep Time [4]	2 weeks	2 weeks
RWS [5]	83.0	76.0
RBS [5]	86.0	106.6
Typical Velocities of Detonation (m/s) [6]	3500 - 3650	3500 - 4000

NOTES:

1. In hole density is dependant on hole depth and loading rate
2. All Dyno Nobel 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. Under normal conditions in dry, stemmed, non-reactive (pyritic) blastholes, Titan BlastLite may be slept for a period of up to two (2) weeks. The sleep time may be limited to the recommended sleep time of the initiating system. For applications where unusual or specific conditions exist please consult your local Dyno Nobel representative.
5. RWS and RBS determined using a density of 0.82g/cm³ and an energy of 3.7MJ/kg for ANFO and a density of 0.56g/cm³ for Titan BlastLite.
6. VOD recorded using a continuous VOD method, on a customer site. The VOD recorded is indicative of the conditions at that site, and will vary due to variations in confinement from site to site.

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Recommendations

Priming Requirements – TITAN BlastLite blends are booster sensitive and a minimum 400g cast booster is recommended. 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. For specific priming requirements please contact your Dyno Nobel representative.

Sleep Time - Under normal conditions in dry, stemmed blastholes, TITAN BlastLite blends may be slept for a period of up to two (2) weeks. The sleep time may be limited to the recommended sleep time of the initiating system. For applications where unusual or specific conditions exist please consult your local Dyno Nobel representative.

Reactive Ground Conditions – TITAN BlastLite blends are not designed for use in reactive (pyritic) ground conditions. For applications in reactive ground conditions please consult your local Dyno Nobel representative.

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

Water Resistance – TITAN BlastLite blends have no water resistance.

Confined Conditions – TITAN BlastLite is a high heave, low VoD product suitable for softer material including porous strata. Where a shot is fired under confined conditions, slow venting of post detonations gases may occur.

Dangerous Goods Classification

Product Name:	TITAN BlastLite
Correct Shipping Name:	Explosive, Blasting, Type E
UN Number:	0241
DG Class:	1.1D

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 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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