

# TECHNICAL DATA SHEET



## TITAN<sup>®</sup> 7000G

### Chemically Sensitized (Gassed) Underground Emulsion

#### Properties

SDS  
#1052

Density Transported g/cc	1.42
Density Gassed in Borehole g/cc	0.8 - 1.25
Energy <sup>a</sup> cal/g (cal/cc)	690 (830)
Relative Weight Strength <sup>b</sup>	0.78
Relative Bulk Strength <sup>b</sup>	1.14
Velocity <sup>c</sup> m/sec (ft/sec)	5,500 (18,000)
Detonation Pressure <sup>c</sup> Kbars	91
Gas Volume <sup>a</sup> moles/kg	42.2
Water Resistance	Excellent
Fume Class	IME1 and NRCan1 <sup>d</sup>
Minimum Hole Diameter in (mm)	1.75 (45)
Loading Method	Pumped

<sup>a</sup> Based on calculated values for emulsion phase, all Dyno Nobel Inc energy and gas volume values are calculated using PRODET, a computer code developed by Dyno Nobel Inc for its exclusive use. Other computer codes may give different values

<sup>b</sup> ANFO = 1.00 @ 0.82 g/cc; TITAN 7000G @ 1.20 g/cc

<sup>c</sup> Unconfined in 50 mm (2 in) diameter @ 1.20 g/cc

<sup>d</sup> Approved by Natural Resources Canada as NRC Fume Class 1

#### Hazardous Shipping Description

##### United States

TITAN 7000G: UN3375 Ammonium Nitrate Emulsion, 5.1 PG II



##### Canada

TITAN 7000G, UN0332 Explosive Blasting, Type E, 1.5D PG II



#### PRODUCT DESCRIPTION

- TITAN 7000G is chemically sensitized (gassed) emulsion specifically designed for underground construction, quarry and mining operations. TITAN 7000G is formulated to be sensitized during the blast hole loading process using Dyno Nobel's innovative chemical gassing and emulsion processing technology incorporated into Dyno Nobel's DYNOMINER<sup>™</sup> equipment and DYNOLOGIX<sup>™</sup> control system. Chemical gassing allows for sensitization during the loading process to optimize performance, handling and site storage requirements

#### APPLICATION RECOMMENDATIONS

- The minimum cast booster weight recommended for use as a primer for TITAN 7000G is 10 gram cast booster @ 5°C (40°F) and above; 90 gram cast booster down to -20°C (-4°F)
- ALWAYS** double prime when TITAN 7000G columns exceed 6 m (20 ft). One primer should be positioned near the bottom of the hole and the second near to the collar
- ALWAYS** ensure primers are in the explosive column
- ALWAYS** consult a Dyno Nobel representative for specific recommendations before designing a TITAN 7000G blasting program involving the use of detonating cord. TITAN 7000G may be used with detonating cord only under special conditions
- ALWAYS** insert the loading hose to the back of the hole before pumping TITAN 7000G to optimize loading



Product Disclaimer: Please see reverse side.

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## TITAN® 7000G

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- **ALWAYS** consult your Dyno Nobel representative for special equipment and loading recommendations before planning a TITAN 7000G blast program that requires collar loading
- Specialized equipment features are necessary to enable the TITAN 7000G emulsion to remain in upholes after loading. Contact your Dyno Nobel representative for equipment recommendations
- **ALWAYS** check any TITAN 7000G loading system before each use to ensure that all components meet operational standards including all safety systems. Equipment should be calibrated periodically to ensure emulsion quality and explosive performance
- Maximum hole depth is 30 m (100 ft) but special formulations are available for deeper boreholes. Consult your Dyno Nobel representative for details

### TRANSPORTATION, STORAGE AND HANDLING

- TITAN 7000 G can be stored for three (3) months at temperatures between -18°C and 32°C (0°F and 90°F). Older product should be used first and all storage tanks should be kept clean of residual product
- Use only Dyno Nobel approved pumps. Pump type, pump speed, worn pump parts, repeated repumping and pumping against high hose pressures can increase TITAN 7000G viscosity and decrease shelf life
- **ALWAYS** monitor emulsion pump performance and check pumps periodically for excessively worn parts. Design storage facilities to minimize repeated pumping
- Transport, store, handle and use TITAN 7000G Matrix in compliance with federal, state, provincial and local laws governing bulk emulsions

**ADDITIONAL INFORMATION – Visit [dynonobel.com](http://dynonobel.com) for Brochures and Case Studies related to this product.**

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