

# TECHNICAL DATA SHEET



## TITAN<sup>®</sup> 7000 G

### 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 7000 G @ 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 7000 G: UN3375 Ammonium Nitrate Emulsion, 5.1 PG II



##### Canada

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



#### PRODUCT DESCRIPTION

- TITAN 7000 G is chemically sensitized (gassed) emulsion specifically designed for underground construction, quarry and mining operations. TITAN 7000 G 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 7000 G 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 7000 G 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 7000 G blasting program involving the use of detonating cord. TITAN 7000 G may be used with detonating cord only under special conditions
- ALWAYS** insert the loading hose to the back of the hole before pumping TITAN 7000 G to optimize loading



Product Disclaimer: Please see reverse side.

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- **ALWAYS** consult your Dyno Nobel representative for special equipment and loading recommendations before planning a TITAN 7000 G blast program that requires collar loading
- Specialized equipment features are necessary to enable the TITAN 7000 G emulsion to remain in upholes after loading. Contact your Dyno Nobel representative for equipment recommendations
- **ALWAYS** check any TITAN 7000 G 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 7000 G 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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