



### Semi-Gelatin Nitroglycerin Dynamite



#### Product Description

UNIGEL is a semi-gelatin dynamite designed to satisfy the vast majority of explosive applications in soft to medium rock types. It is particularly suited for application in horizontally bedded, laminated and/or fractured formations and where water conditions are not excessive. In addition to use as the main charge in the borehole, UNIGEL is also an excellent primer for ANFO.

#### Application Recommendations

- UNIGEL is an excellent primer for Dynamix (ANFO), Dynamix-WR (WR ANFO) or other detonator sensitive packaged product and can be used as a secondary primer in hard seams or at the top of the explosive column.
- Minimum diameter is 29 mm (1 in).
- Minimum detonator is No. 8 strength.
- Depending on storage conditions, dynamites may become difficult to punch. This does not affect performance. Use softer cartridges to make up primers.
- Dynamites are susceptible to sympathetic detonation when applied in very wet conditions where boreholes are closely spaced and/or where geological conditions promote this effect. Consult your Dyno Nobel representative for recommendations where these conditions exist.

### Properties

MSDS #1019

Density (g/cc) Avg	1.30
Energy <sup>a</sup> (cal/g)	955
(cal/cc)	1,240
Relative Weight Strength <sup>a</sup>	1.09
Relative Bulk Strength <sup>a,b</sup>	1.72
Velocity <sup>c</sup> (m/s)	4,300
(ft/s)	14,100
Detonation Pressure <sup>c</sup> (Kbars)	60
Gas Volume <sup>a</sup> (moles/kg)	37
Water Resistance	Good
Fume Class	IME1 & NRCan1 <sup>d</sup>

<sup>a</sup> All Dyno Nobel Inc. energy and gas volume values are calculated using PRODET™ the 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

<sup>c</sup> Unconfined @ 32 mm (1¼ in) diameter.

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

#### Hazardous Shipping Description

Explosive, Blasting, Type A, 1.1D, UN 0081 II





### Transportation, Storage and Handling

- UNIGEL must be transported, stored, handled and used in conformity with all applicable federal, state, provincial and local laws and regulations.
- For maximum shelf-life, dynamite must be stored in cool, dry and well-ventilated magazines. Dynamite inventory should always be rotated by using the oldest materials first. For recommended good practices in transporting, storing, handling and using this product, see the booklet “Prevention of Accidents in the Use of Explosive Materials” packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.

### Packaging

Diameter x Length		Qty / Case	Case Type	Nominal Case Weight	
mm	in			kg	lbs
25 x 200	1 x 8	140	DA	20	43
29 x 200	1 1/8 x 8	100	DA	18	39
32 x 200	1 1/4 x 8	88	DA	18	40
40 x 200	1 1/2 x 8	60	DA	20	45
50 x 200	2 x 8	34	DB	19	42
50 x 400	2 x 16	17	DB	19	42
60 x 400	2 1/4 x 16	14	DE	20	45
65 x 400	2 1/2 x 16	10	DB	17	37
70 x 400	2 3/4 x 16	9	**	**	**
75 x 400	3 x 16	8	DE	20	44

\*\*Available upon request.

- UNIGEL is available in a wide variety of sizes. Custom sizes are subject to surcharge and may require longer than usual lead times.
- Note: All weights are approximate.
- Check with your Dyno Nobel representative should you have any questions.

### Case Dimensions

<b>DA</b>	45 x 34 x 17 cm	17 3/4 x 13 3/8 x 6 3/8 in
<b>DB</b>	45 x 34 x 15 cm	17 7/8 x 13 3/8 x 5 7/8 in
<b>DE</b>	45 X 34 X 17 cm	17 7/8 x 13 5/16 x 6 3/4 in

**Product Disclaimer** Dyno Nobel Inc. and its subsidiaries disclaim any warranties with respect to this product, the safety or suitability thereof, or the results to be obtained, whether express or implied, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR OTHER WARRANTY. Buyers and users assume all risk, responsibility and liability whatsoever from any and all injuries (including death), losses, or damages to persons or property arising from the use of this product. Under no circumstances shall Dyno Nobel Inc. or any of its subsidiaries be liable for special, consequential or incidental damages or for anticipated loss of profits.