TECHNICAL DATA SHEET

Z POWDER

Permissible Extra Gelatin Nitroglycerin Dynamite

| Properties | SDS #1019 | |
|---|------------------|--|
| Density (g/cc) Avg | 1.34 | |
| Energy ^a cal/g (cal/cc) | 965 (1,351) | |
| Relative Weight Strength ^b | 1.10 | |
| Relative Bulk Strength ^b | 1.88 | |
| Velocity ^c m/sec (ft/sec) | 5,000 (16,400) | |
| Detonation Pressure ^c (Kbars) | 86 | |
| Gas Volumeª (moles/kg) | 33 | |
| Water Resistance | Excellent | |
| Fume Class | MSHA Permissible | |

^a 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.

- ^b ANFO = 1.00 @ 0.82 g/cc
- $^{\rm c}$ Unconfined @ 32 mm (1 $^{1/4}$ in) diameter

PRODUCT DESCRIPTION

Z POWDER is an extra gelatin permissible dynamite

formulated to meet the requirements of the Mine Safety and Health Administration for use in underground coal mines. It does not readily absorb moisture from the air and remains soft after extended proper storage. Z POWDER is designed specifically to meet the most difficult blasting conditions found in underground coal mines, such as shaft, slope and general mine development work where hard rock and/or extreme water conditions are common.

APPLICATION RECOMMENDATIONS

- This product is permissible only if used in accordance with applicable regulations, 30 CFR part 75. These regulations are very detailed and all users should become fully familiar with their content.
- Minimum detonator for permissible application is a bronze shell No. 8 strength.
- 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.







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Packaging

| Diameter | x Length | 011/0000 | Net Explosive Weight* | |
|----------|----------|------------|-----------------------|------|
| mm | in | Qly / Case | kg | lbs |
| 32 x 200 | 1 ¼ x 8 | 88 | 19.2 | 42.2 |
| 32 x 400 | 1 ¼ x 16 | 44 | 19.2 | 42.2 |
| 38 x 400 | 1 ½ x 16 | 30 | 18.9 | 41.7 |
| 51 x 200 | 2 x 8 | 34 | 19.3 | 42.5 |
| 51 x 400 | 2 x 16 | 18 | 19.8 | 43.7 |

*Add two pounds for Gross Case Weight

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

TRANSPORTATION, STORAGE AND HANDLING

- Z POWDER 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.

Case Dimensions

45 x 34 x 17 cm 17³/₄ x 13³/₈ x 6³/₈ in

ADDITIONAL INFORMATION - Visit <u>dynonobel.com</u> for Brochures and Case Studies related to this product.

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