

DYNOMIX™ WR

Technical
Information



Booster Sensitive Explosive



Product Description

DYNOMIX WR is a premixed, free-flowing, limited water resistant explosive that uses a special mixture of ingredients to coat surface of the ANFO prills. This coating helps block water penetration and enables detonation in damp borehole conditions. In certain situations, DYNOMIX WR can fill the gap between regular ANFO and packaged explosive products and is available in various sizes and types of bags.

Application Recommendations

- The minimum cast booster weight recommended for use as a primer is 454 g (16 oz) or equivalent weight of high velocity nitroglycerin dynamite such as Unigel®, Unimax® or Dynamax® Pro.
- Minimum recommended diameter is 75 mm (3 in) when poured.
- To produce consistently good results, wet blastholes must be dewatered. After dewatering, check the borehole to ensure there is no re-entering or residual water. As soon as the borehole is confirmed dry, immediately prime, load and stem.
- **NEVER** pour DYNOMIX WR into boreholes where standing water is present!
- **ALWAYS** double prime DYNOMIX WR. One primer should be positioned 0.3 m (12 in) off the bottom of the borehole and the second primer positioned further up the Dynamix WR column.

Properties

MSDS
#1009

Density (g/cc) Avg	0.87
Energy ^a (cal/g)	880
(cal/cc)	748
Relative Weight Strength ^{a,b}	1.00
Relative Bulk Strength ^{a,b}	1.04
Velocity ^c (m/sec)	3,460
(ft/sec)	11,350
Detonation Pressure ^c (Kbars)	25
Gas Volume ^a (moles/kg)	43
Water Resistance	Limited
Fume Class	IME1

^aAll 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.

^bANFO = 1.00 @ 0.82 g/cc

^cConfined @ 75 mm (3 in) diameter

Hazardous Shipping Description

Explosive, Blasting, Type B, 1.5D, UN 0331 II



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Application Recommendations (continued)

- **ALWAYS** ensure that the second primer is at least 0.3 m (12 in) above the borehole depth where the water-level was before dewatering. Additional primers are **ALWAYS** recommended whenever separation or blockages in the poured DYNOMIX WR column are suspected to have occurred during loading.
- Whenever standing water remains in a borehole after dewatering, a water-resistant packaged explosive should be loaded after priming until its column rises out of the water before loading DYNOMIX WR. Then, and only then, should DYNOMIX WR be loaded. At least one additional primer should be located in the DYNOMIX WR column in this situation.
- **NEVER** leave DYNOMIX WR in loaded boreholes overnight.

Transportation, Storage and Handling

- DYNOMIX WR has a shelf life of 3 months from date of manufacture when stored at temperatures between -17° C and 32° C (0° F and 90° F).
- 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 Safety Library Publications of the Institute of Makers of Explosives.
- DYNOMIX WR must be transported, stored, handled and used in conformity with all applicable federal, state, provincial and local laws and regulations.

Borehole Diameter		Dyno Nobel Cast Booster	Nitroglycerin Dynamite Primers (diameter x length)			Use at least two primers per borehole when DYNOMIX column exceeds the following heights	
mm	in		Product	mm	in	Meters	Feet
50 – 65	2 – 2½	D-15 or Trojan® Spartan® 150	Dynomax® Pro, Unigel® or Unimax®	38 x 200	1½ x 8	3.0	10
65 – 75	2½ – 3	D-25 or Trojan® Spartan® 200	Dynomax Pro, Unigel or Unimax	50 x 200 50 x 400	2 x 8 2 x 16	4.6	15
75 – 100	3 – 4	D-35 or Trojan® Spartan® 350	Dynomax Pro, Unigel or Unimax	65 x 400 70 x 400	2½ x 16 2¾ x 16	6.0	20
100 – 165	4 – 6½	D-45 or Trojan® Spartan® 450	Secondary Primer Only	75 x 200 75 x 400	3 x 8 3 x 16	6.0	20
165 & Up	6½ & Up	D-90 or Trojan® Spartan® 900	Secondary Primer Only	75 x 400	3 x 16	6.0	20

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Dyno Nobel Inc.

2650 Decker Lake Boulevard, Suite 300, Salt Lake City, Utah 84119 USA
Phone 800-732-7534 Fax 801-328-6452 Web www.dynonobel.com

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