

# **Booster Sensitive Explosive**



### **Product Description**

IEmiX-12 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, IEmiX-12 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<sup>®</sup>, Unimax<sup>®</sup> or Dynomax<sup>®</sup> 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 IEmiX-12 WR into boreholes where standing water is present!
- ALWAYS double prime IEmiX-12 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 IEmiX-12 WR column.

# Properties

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

- <sup>a</sup> All energy and gas volume values are calculated using PRODET<sup>™</sup>, 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
- ° Confined @ 75 mm (3 in) diameter







### 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 IEmiX-12 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 IEmiX-12 WR. Then, and only then, should IEmiX-12 WR be loaded. At least one additional primer should be located in the IEmiX-12 WR column in this situation.

## Transportation, Storage and Handling

- IEmiX-12 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.
- IEmiX-12 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 - 21/2	D-15 or Trojan <sup>®</sup> Spartan <sup>®</sup> 150	Dynomax <sup>®</sup> Pro, Unigel <sup>®</sup> or Unimax <sup>®</sup>	38 x 200	1½ x 8	3.0	10
65 – 75	2½ – 3	D-25 or Trojan <sup>®</sup> Spartan <sup>®</sup> 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 <sup>®</sup> Spartan <sup>®</sup> 350	Dynomax Pro, Unigel or Unimax	65 x 400 70 x 400	2½ x16 2¾ x16	6.0	20
100 – 165	4 - 61/2	D-45 or Trojan <sup>®</sup> Spartan <sup>®</sup> 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 <sup>®</sup> Spartan <sup>®</sup> 900	Secondary Primer Only	75 x 400	3 x 16	6.0	20

• NEVER leave IEmiX-12 WR in loaded boreholes overnight.

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