

# DYNO<sup>®</sup> XTRA

## Technical Information



## Small Diameter Detonator Sensitive Emulsion



### Product Description

DYNO XTRA is a detonator sensitive, specialty packaged emulsion explosive engineered to meet the demands of shaft sinking and UG civil projects. It is recommended for use in super saturated conditions, where blast holes are closely spaced, and dynamic shock is a concern. DYNO XTRA will retain its performance when the package is slit and exposed to water for extended periods of time.

### Application Recommendations

- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight.
- At internal product temperatures higher than -18°C (0°F), **ALWAYS** use a Dyno Nobel high strength detonator or equivalent. At internal product temperatures below -18°C (0°F) and higher than -26°C (-15°F), **ALWAYS** use an 10 gram or larger cast booster. For internal product temperatures below -26°C (-15°F), consult your Dyno Nobel representative for the recommended cast booster size.
- Use with detonating cord is not recommended.
- **ALWAYS** ensure continuous column loading of cartridges. Where column separation is likely, use additional primers.

## Properties

SDS  
#1030

	Chub/Plastic	Paper
<b>Density</b> (g/cc) Avg	1.17	1.11
<b>Energy</b> <sup>a</sup> (cal/g)	825	800
(cal/cc)	965	890
<b>Relative Weight Strength</b> <sup>a,b</sup>	0.94	0.91
<b>Relative Bulk Strength</b> <sup>a,b</sup>	1.34	1.24
<b>Velocity</b> <sup>c</sup> (m/s)	4,900	4,900
(ft/s)	16,100	16,100
<b>Detonation Pressure</b> <sup>c</sup> (Kbar)	70	67
<b>Gas Volume</b> <sup>a</sup> (moles/kg)	37	37
<b>Fume Class</b>	IME1 & NRCan1 <sup>d</sup>	No Underground
<b>Shelf Life Maximum</b>	1 year (from date of production)	
<b>Maximum Water Depth</b>	30 m (100 ft)	
<b>Water Resistance</b>	Excellent	

<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 @ 50 mm (2 in) diameter

<sup>d</sup> Approved by Natural resources Canada as Fume Class 1 in chub/PMP packaging only.

### Hazardous Shipping Description

Explosive, Blasting, Type E, 1.1D, UN 0241 II



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### Transportation, Storage and Handling

- DYNO XTRA must be transported, stored, handled and used in conformity with all applicable federal, state, provincial and local laws and regulations.
- Packaged emulsions have a shelf life of one (1) year when stored at temperatures between -18° C and 38° C (0° F and 100° F). Explosive inventory should be rotated. Avoid using new materials before the old. 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

Product Code	Diameter x Length		Packaging Type		Nominal Case Qty.	Case Weight		Net Explosive Weight	
	mm	in	film	paper		kg	lbs	kg	lbs
QG44012516	32 x 400	1¼ x 16	PMP		54	19.6	43.1	18.6	41.0
QG44015016	38 x 400	1½ x 16	PMP		37	19.1	42.1	18.1	40.0
QG44020016	50 x 400	2 x 16	VALERON		18	18.2	40.1	17.2	38.0
IL44112516N	32 x 400	1¼ x 16		CSTT	57	19.1	42.1	18.1	40.0
IL44115016N	38 x 400	1½ x 16		CSTT	38	19.1	42.1	18.1	40.0
IL44220016N	50 x 400	2 x 16		TS	21	19.1	42.1	18.1	40.0

- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight. All weights are approximate
- DYNO XTRA is available in a wide variety of sizes. Custom sizes are subject to surcharge and may require longer than usual lead times
- Check with your Dyno Nobel representative should you have any questions

### Case Dimensions

44 x 35 x 20 cm    17½ x 13¾ x 7¾ in

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