

DYNO[®] MC

Technical Information



Small Diameter Paper Packaged Detonator Sensitive Emulsion



Product Description

DYNO MC is a detonator sensitive, Fume Class 1, all-purpose packaged emulsion explosive that is recommended for underground non-permissible blasting applications (drifting, quarry and construction). The firm rheology of DYNO MC permits easy handling, rapid loading and enhances performance characteristics. Excellent borehole coupling is achieved when the paper convolute shell tamptite packaging feature is used.

Application Recommendations

- **ALWAYS** use a Dyno Nobel high strength detonator or equivalent to prime at internal product temperatures higher than -18° C (0° F). Use with detonating cord is not recommended. Consult your Dyno Nobel representative for details.
- DYNO MC provides designed performance characteristics in severe water conditions, when slept in wet holes for long periods of time and even when the packages are slit or tamped
- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight.
- Emulsion explosives are susceptible to “dynamic shock” and may detonate at low order or fail completely when applied in very wet conditions where explosive charges or decks are closely spaced and/or where geological conditions promote this effect. Consult your Dyno Nobel representative for alternate product recommendations when these conditions exist.
- The product will perform in temperatures from -18° to +50° C (0° to 122° F).

Properties

MSDS
#1030

Density	(g/cc) Avg	1.08
Energy^a	(cal/g)	750
	(cal/cc)	810
Relative Weight Strength^a		0.85
Relative Bulk Strength^{a,b}		1.12
Velocity^c	(m/s)	4,500
	(ft/s)	14,750
Detonation Pressure^c	(Kbars)	55
Water Resistance		Excellent
Gas Volume^a	(moles/kg)	39
Fume Class^d		IME1
Shelf Life Maximum		1 year (from date of production)

^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

^c Unconfined @ 32 mm (1 1/4 in) diameter

^d DYNO[®] MC is IME Fume Class 1.

Hazardous Shipping Description

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





Transportation, Storage and Handling

- DYNO MC 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

Diameter x Length		Nominal Cartridge Count / 25 kg (55 lb) case Paper Convolute Shell
mm	in	
29 x 300	1 1/8 x 12	115 - 120
32 x 300	1 1/4 x 12	94 - 97
40 x 300	1 1/2 x 12	67 - 70
32 x 400	1 1/4 x 16	74 - 77
40 x 400	1 1/2 x 16	51 - 52

- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight. Note: All weights are approximate.
- DYNO MC 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

41 x 33 x 25 cm 16 3/16 x 13 1/4 x 9 3/4 in

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