TECHNICAL DATA SHEET

PACKAGED EXPLOSIVES

DYNO® SL

Small Diameter Detonator Sensitive Emulsion

Properties

SDS #1030

		DYNO SL	DYNO SL PLUS
Density	(g/cc) Avg	1.15	1.15
Energy[a]	(cal/g)	770	850
	(cal/cc)	885	980
Relative Weight Strength[a]		0.88	0.97
Relative Bulk Strength[a,b]		1.23	1.36
Velocity[c]	(m/s)	4,700	4,600
	(ft/s)	15,400	15,100
Detonation Pressure[c]	(Kbar)	63	61
Gas Volume[a]	(moles/kg)	40	38
Shelf Life Maximum		1 year (from date of production)	
Water Resistance		Excellent	
Fume Class		IME1 & NRCan1[d]	

[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] Approved by Natural Resources Canada as Fume Class 1 in chub/PMP packaging.

Hazardous Shipping Description
• Explosive, Blasting, Type E, 1.1D, UN 0241 II

PRODUCT DESCRIPTION

DYNO SL and DYNO SL PLUS are detonator sensitive, water resistant, packaged emulsion explosives specifically designed for use in 65 mm (2½ in) to 100 mm (4 in) diameter uphole applications where a Swedish Air Loader is used for charge placement. These products maintain consistent explosive properties even after subjection to the severe impacts experienced with Swedish Air Loader pneumatic loading equipment.

APPLICATION RECOMMENDATIONS

- ALWAYS use a Dyno Nobel high strength detonator or equivalent at internal product temperatures higher than -18°C (0°F). ALWAYS use a 10 gram or larger cast booster at internal product temperatures below -18°C (0°F) and higher than -23°C (-10°F). For internal product temperatures below -23°C (-10°F), consult your Dyno Nobel representative for the recommended cast booster size.
- DYNO SL will perform in temperatures from -40° to +50°C (-40° to +122°F).
- ALWAYS slit the cartridge and allow its internal pressure to be released before inserting the detonator to make-up the primer where DYNO SL is to be used as a primer for ANFO in underground drift rounds or as main explosive load in underground drift or raise rounds. Keep cartridge away from face and eyes when slitting or puncturing.
- 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.
- Use with detonating cord is not recommended. Consult your Dyno Nobel representative for details.

Product Disclaimer: Please see reverse side.

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Properties Cont.

Packaging

Diameter x Length		Case Quantity	Case Type	Net Explosive Weight*		Net Explosive Weight / Chub	
mm	in			kg	lbs	kg	lbs
25 x 300	1 x 12	120	A	18.2	40	0.15	0.33
25 x 400	1 x 16	90	B	18.2	40	0.20	0.44
28 x 400	1 1/8 x 16	64	B	18.2	40	0.29	0.63
32 x 300	1 1/4 x 12	70	A	18.2	40	0.26	0.57
32 x 400	1 1/4 x 16	54	B	18.6	41	0.34	0.75
38 x 400	1 1/2 x 16	37	B	18.2	40	0.49	1.08

- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight. Note: All weights are approximate.
- DYNO SL 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.
- *Add two pounds for Gross Case Weight

Case Dimensions

A	44 x 36 x 25 cm	17 3/8 x 14 x 9 5/8 in
B	44 x 38 x 21 cm	17 1/8 x 15 x 8 1/4 in

TRANSPORTATION, STORAGE AND HANDLING

- DYNO SL and DYNO SL PLUS 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 -18ºC and 38º C (0ºF and 100ºF). 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.

ADDITIONAL INFORMATION – Visit **dynonobel.com** for Brochures and Case Studies related to this product.

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