LECO Mounting Supplies

Ordering Information for Cold-Mounting Acrylics, Epoxies, and Polyesters

LECOSET® 100 (Acrylic) Kits *(Includes measuring scoop)*

Mix 1 part liquid with 2 parts powder; 10 to 12 minutes air curing for an opaque mount (use LECOMAT® Pressure Vessel for transparent mount).

Small	812-129-HAZ	16.9 oz (500 mL) liquid/2.2 lb (1000 g) powder
Medium	812-130-HAZ	33.8 oz (1000 mL) liquid/4.4 lb (2000 g) powder
Extra Large	812-132-HAZ	101.4 oz (3 L) liquid/13.2 lb (6000 g) powder

LECOSET 7008 Kits (Acrylic)

Mix liquid with powder; 10 to 12 minutes air curing for an opaque mount.

Medium	813-115-HAZ	(1000 g powder/500 mL liquid)
Large	813-116-HAZ	(2000 g powder/1000 mL liquid)

LC Epoxy (Long Cure) Kits

Mix 14 g hardener with 100 g resin; 4 to 8 hours air curing/45 minutes working time for a transparent mount; 175 °F (79 °C) peak cure temperature.

Small	812-522	4.7 oz (133 g) hardener/2 lb (907 g) resin
Large	812-523	1 lb. 2 oz (508 g) hardener/8 lb (3629 g) resin

QC Epoxy (Quick Cure) Kits

Mix 20 g hardener with 100 g resin; 30 to 60 minutes air curing/25 minutes working time for a transparent mount; 200 °F (93 °C) peak cure temperature.

Small	812-524-HAZ	6.4 oz (182 g) hardener/2 lb (907 g) resin
Large	812-525-HAZ	1 lb 10 oz (737 g) hardener/8 lb (3629 g) resin

LECOSET 7000 (Polyester) Kits

Mix 2 parts liquid #1 with 1 part liquid #2 and 2 parts powder; 6 to 10 minutes air curing for an opaque mount.

Medium	813-005-HAZ	(750 g powder/500 mL liquid #1/250 mL liquid #2)
Large	813-056-HAZ	(1500 g powder/1000 mL liquid #1/500 mL liquid #2)

Castolite (Polyester) Kits

Mix 4 ml hardener with 178 ml resin; 4 to 8 hours air curing for a transparent mount; 170 °F to 190 °F (77 °C to 88 °C) peak cure temperature.

Medium	811-187-HAZ	0.40 oz (11.8 mL) hardener/2 lb (908 g) resin
Large	811-188-HAZ	2.0 oz (60 mL) hardener/9 lb (4083 g) resin

Accessories for Cold Mounts

810-485	Spring steel sample supports, 100/pkg
810-815-310	Plastic sample clips, 100/pkg
811-275	Graduated paper mixing cup, 3.5 oz (100 mL), 100/pkg
811-279	Graduated plasic mixing cup, 10 oz (296 mL), 100/pkg
813-025	*Mixing kit includes:* 20 cups; 20 wooden spatulas; 1 spoon; 12 mold cups—1 in diameter; 12 mold cups—1.25 in diameter
810-990-012	12 plastic mold cups, 1 in diameter
810-991-012	12 plastic mold cups, 1.25 in diameter
810-992-012	12 plastic mold cups, 1.50 in diameter
813-018-012	12 plastic mold cups, 25 mm diameter
813-019-012	12 plastic mold cups, 30 mm diameter
813-020-012	12 plastic mold cups, 40 mm diameter
811-221	Ring Molds, 1.00 in (25 mm) OD, 100/pkg
811-225	Ring Molds, 1.25 in (32 mm) OD, 100/pkg
811-229	Ring Molds, 1.50 in (38 mm) OD, 100/pkg
811-223	Ring Molds, 2.00 in (51 mm) OD, 100/pkg

813-006 LECOMAT® Pressure Vessel Specifications

Dimensions: 11.5 in H x 13.5 in W x 13.5 in D (29.2 x 34.3 x 34.3 cm)
Weight 10 lb (4.5 kg)
Will hold up to ten 1.5 in mold cups

Silicone Reusable Rubber Molds

811-651-230	25 mm Round (Qty. 5)
811-651-231	30 mm Round (Qty. 5)
811-651-232	32 mm Round (Qty. 5)
811-651-233	40 mm Round (Qty. 5)
811-651-234	50 mm Round (Qty. 5)
811-651-235	25, 30, 32, 40, 50 mm Round (Qty. 5)
811-651-236	70 mm x 30 mm Rectangle (Qty. 5)
811-651-237	100 mm x 42 mm Rectangle (Qty. 5)
811-651-340	1.25 in Round (Qty. 5)
811-651-341	1.50 in Round (Qty. 5)

For a complete listing of LECO's high-quality metallographic consumables, call 1-800-292-6141 and request our Metallographic Consumables Catalog (form no. 203-826-000), or go to www.leco.com to download the latest catalog.

Delivering the Right Results

Recommended Mounting Methods

ALUMINUM Aluminum is typically soft and can be mounted in most mounting materials. If heat is a concern, use a castable technique to avoid compromising the microstructure of your material. *LECOSET* 100 or 7008 is the proper medium to select, and the *LECOMAT* provides a transparent mount (if desired).

BORIDES/CARBIDES These types of harder/brittle materials need special care when mounting. Epoxy cold mounting is highly recommended because of problems with sample fracturing under the pressure of the thermosetting process. Compression mounts can be used, but care must be taken to make sure that all burrs have been removed. This will keep the mount flat and fractures are much less likely to occur.

CERAMICS, CERMETS The same rules apply to ceramics as the borides/carbides family. Ceramics tend to be hard/brittle and will be damaged if mounted in a thermosetting mounting material. Epoxy cold mounting (QC & LC Epoxy) will provide the correct abrasion resistance and excellent edge retention.

COPPER, BRASS Copper and brass are considered softer materials and acrylic cold mounting materials (*LECOSET* 100) are acceptable for the majority of applications.

CIRCUIT BOARDS Small plated thru-holes must be filled so cold mount materials must be used. Typically, acrylics are best because they provide low viscosity and quicker cure times. Circuit boards are not extremely hard so epoxy is not needed in this case. *LECOSET* 100 or 7008 used in conjunction with a pressure vessel will provide excellent results.

FERROUS MATERIALS This is a very broad category which may include soft low-carbon steels and higher carbon steels that have been heat-treated. Ferrous materials are good candidates for thermosetting mounting materials. Bakelite, epoxy, or even diallyl phthalate may be appropriate depending upon the hardness of the material. Lower-carbon steels can be mounted in bakelite or an economical cold mounting system. Harder medium and high-carbon steels should be mounted in epoxy especially when surface defects are being investigated. Epoxy will ensure good adhesion to the sample and therefore with good preparation techniques. It will also provide excellent sample flatness.

PRECIOUS METALS Precious metals are very soft and should be mounted in the softer mounting materials. Bakelite and some of the cold mounting materials are excellent for mounting these alloys. Precious metals will "dish" out or abrade away faster than the mounting material if it is harder than needed. Usually precious metals require excessive final polishing to remove unwanted scratches, so the mounting media should wear away almost as readily as the metal itself. Lucite thermoplastic mounting material is excellent for these types of applications. Its clarity allows the operator to grind to a specific area of interest.

STAINLESS STEELS Stainless steels vary quite a bit in hardness. Ferritic stainless steels such as 409 and 430 are fairly soft and can be mounted in bakelite or an economical cold mounting material. Martensitic grades such as 410, 420, and 440C are much harder and should be mounted in epoxy thermosetting or diallyl phthalate. Austenitic grades are usually somewhere in between and can be mounted in either group. When surface anomalies or defects are being investigated it is always better to use the harder mounting material if a choice is available.

TUNGSTEN ALLOYS Tungsten and other "tough" materials such as titanium and nickel alloys require special metallographic polishing, but mounting can be done with normal thermosetting materials such as bakelite or epoxy.

Specifications and part numbers may change.
Consult LECO for latest information.

LECO Corporation
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