

# PLASTER AND MOLD MAKING

Plaster and gypsum cements are incredibly versatile in their applications - from elegant plaster lamps, tables and figurines to molds for slip casting and dies for pressing. Soft, hard, permeable, durable, hobby or industrial, the various types of plaster cover a multitude of uses. Laguna Clay is a major distributor of plaster and gypsum cement products for United States Gypsum. This catalog lists the most commonly used plaster and gypsum cements, most of which are stocked by Laguna. Specialized USG products not listed are available by special order. For technical data visit [www.gypsumsolutions.com](http://www.gypsumsolutions.com) or contact [info@lagunaclay.com](mailto:info@lagunaclay.com).

## USG PLASTERS & GYPSUM CEMENTS FOR CERAMIC APPLICATIONS

CERAMI-CAL	Low consistency, smooth-wearing mold material for use in pressing clay ware. Characteristics include low absorption, high strength, ability to purge easily, resistance to abrasion and wear.
DURAMOLD POTTERY	Compared to No. 1 Pottery Plaster: 10% longer life, 28% higher wet compressive strength, 66% stronger dry compressive strength, makes more durable working molds, resulting in lower costs per unit cast.
HYDROCAL B-11	Similar to Hydrocal A-11 cement in setting expansion and dimensional accuracy, but with slightly less strength. Greater plasticity and more gradual setting action make it more suitable for built-up or template-formed models.
HYDRO-STONE	Especially suitable where high strength and resistance to wear are necessary. Used in high-quality art and novelty castings, molds, figurines, modeling material, anchoring material, density fill applications, lamp bases, and die production. Works well in most mold materials, especially flexible molds. Expansion about two times greater than Hydrocal A-11.
NO. 1 POTTERY	Formulated to provide stronger, longer-lasting working molds than Regular Pottery plaster. Slightly whiter than Parallel Pottery plaster. Approximately 125 turns per mold. Industry standard for dinnerware and sanitary ware.
PURITAN POTTERY	Slightly denser, long-wearing mold material. Recommended for jiggering applications. Approximately 200 turns per mold.
REGULAR POTTERY	General purpose product recommended for most slip casting applications in the ceramic industry. Approximately 75 turns per mold.
ULTRACAL 30	A low-absorption gypsum cement for case molds. Specially made for close tolerance tooling; provides excellent hardness, accuracy and freedom from efflorescence.

## USG PLASTERS & GYPSUM CEMENTS FOR ART, STATUARY & CASTING APPLICATIONS

HYDROCAL FGR-95	Ideal for hand lay-up applications. Develops high strength and permits fabrication of strong, resilient glass-reinforced gypsum products that are fire-resistant, adaptable to deep patterns, accept most coatings, help overcome fire code problems of many plastics, and cost about 2/3 less than filled polyesters.
HYDROCAL WHITE	A basic gypsum cement with a use consistency of 45 lbs. of water per 100 lbs. of plaster. Can be carved or added to. Setting expansion and compressive strength about twice that of Moulding, Casting or Pottery Plaster.
HYDRO-STONE	Especially suitable where high strength and resistance to wear are necessary. Used in high-quality art and novelty castings, molds, figurines, modeling material, anchoring material, density fill applications, lamp bases, and die production. Works well in most mold materials, especially flexible molds. Expansion about two times greater than Hydrocal A-11. Self-leveling when poured and not suitable for hollow cast applications.
REGULAR CASTING 20 (Moulding Plaster)	Good utility plaster where expansion control, hardness and strength are not of major importance. Similar to Plaster of Paris. Casts are porous and must be carefully sealed for decorating.
WHITE ART 20 MINUTE	Similar in working properties to Regular Casting Plaster except contains a surface hardening agent which minimizes paint absorption.

## USG GYPSUM CEMENTS

DURACAL	High compressive strength, fast setting, concrete patch material developed for patching roads and concrete floors. Stands up to freeze-thaw, salt and heavy traffic. Use unaggregated or mixed with sand or aggregate up to 50:50.
HYDROPERM	Permeable metal casting product formulated with Hydrocal gypsum cement. Suitable for nonferrous casting because of smooth mold surface, carvability and controllable permeability.

## SUPPLIES FOR PRESSING DIES

MOLDUCT TUBING	A special woven cotton tubing used in pressing dies for air passageways. Air, forced through the tubing, causes the release of the pressed piece from the dies. Both sizes sold by the foot, minimum length 25 feet.						
	PRODUCT	SIZE	25'	50'	100'	400'	750'
	IP-301-8	1/8" tubing					
	IP-301-4	1/4" tubing					

# LAGUNA MOLD AND DIE SHOP

Custom mold work including model making, slip casting molds, pressing dies, and flexible rubber molds. Mold making training is available by special request.

## ADDITIVES FOR PLASTERS AND GYPSUM CEMENTS

- DEXTRIN**                      A 2% to 4% addition of Dextrin to plaster/gypsum will increase the surface strength and aid in resistance to abrasion of finished pieces. Dissolve in water before adding plaster/gypsum.
- TERRA ALBA #1**              An accelerator used to speed up the set time of most plaster and gypsum cements.
- CASTING FIBER**              Made of long fibered hemp. This bulky and lightweight material is the best available for filling and backing plaster/gypsum. It not only reduces the weight but will hold the piece together and help prevent cracks from forming into complete breaks.

PRODUCT	1 LB.	5 LBS.	10 LBS.	50 LBS.	100 LBS.
SODATE RETARDER					
DEXTRIN					
TERRA ALBA #1					
SNOW WHITE FILLER					
above prices are per pound					
CASTING FIBER		Bale - Approx. 36 lbs.	1/2 Bale - Approx. 18 lbs.		

## PARTING AGENTS

- IP-240 PURELUBE**              A pure liquid (non-detergent) soap separator, used as a release when casting plaster/gypsum into a plaster mold, and to prevent plaster/gypsum products from adhering to most porous surfaces. PureLube may be used full strength or diluted with water. Apply with a clean sponge until foam appears, dab off excess and repeat the process until a sheen appears.  
 1 pint Ship. wt. 2 lbs.                      1 gallon Ship. wt. 9 lbs.                      5 gallons - Ship. wt. 45 lbs.
- IP-329 POLYEASE 2300**              A superior release with minimum build-up on mold surfaces. Used for casting urethane elastomers, epoxy, polyester and rubber compounds. Molded parts are easily cleaned for finishing operations. This product can be used on aluminum, steel, epoxy, polyester and rubber molds. Sold in 12oz. aerosol cans. Ship. wt. 1 lb.
- IP-6046 MOLD SOAP**              Also known as Green Soap or Hospital Soap. This concentrated soap has a consistency similar to vaseline and must be diluted with warm water. Application is the same as for Purelube. Prices are per pound.  
 1 lb.                      5 lbs.                      10 lbs.                      50 lbs.

# MOLD MAKING SUPPLIES

## PLASTIC NOTCHES

These plastic notches are sold in pairs. 1/2" and 1" notches come in male and female sections; 3/8" and 5/8" notches are interchangeable. They are excellent for making long lasting, easily keyed molds.

PRODUCT	SIZE	5 PAIR	25 PAIR	100 PAIR	500 PAIR	1000 PAIR
IP-325	3/8"					
IP-326	1/2"					
IP-324	5/8"					
IP-327	1"					

## MOLD RUBBER BANDS

These are high quality rubber bands that offer an inexpensive, yet durable, means for holding sections of molds together for pouring slip. Prices are per pound and may be combined for total quantity price. Natural-ultra violet protected. (Minimum purchase 1 pound per size.)

PRODUCT	SIZE	APPROX. NO. PER LB.	1 LB.	5 LBS.	10 LBS.	25 LB/CASE
NL 240-4	4" x 3/4"	55				
NL 240-6	6" x 3/4"	35				
NL 240-7	7" x 3/4"	30				
NL 240-9	9" x 3/4"	20				

## MOLD BANDING STRAPS

Made of 100% nylon strapping with locking metal fasteners, these straps can be used to band molds of any shape or size. They insure a tight fit, are easy to use and are long wearing. All 1" wide straps are 1000 pound test nylon.

1" WIDE

PRODUCT	SIZE	COLOR	EACH	10	30	60
NL-206-3	3'	YELLOW				
NL-206-4	4'	GREEN				
NL-206-5	5'	BLUE				
NL-206-6	6'	ORANGE				
NL-206-7	7'	RED				

## SURFORM FILE

For use on plaster molds and refractory soft bricks. Metal alloy body with high impact resistant black molded handle. Ribbed section on front of body permits comfortable two-handed use of tool. Regular cut flat blade with edge cut feature for inside corners. 15 3/4" long, 1 5/8" wide.

TM-482 File Ship. wt. 1 lb.  
 TM-482B Extra Blade



## SURFORM ROUND FILE

For use on plaster molds. Enlarges holes fast, forms and shapes decorative cuts. Black finish hardwood handle. Round, regular cut, hardened steel blade is 5/8" in diameter and 14 1/4" long.

TM-483 Round File Ship. wt. 1/2 lb.



## LIQUID LATEX (liquid latex products have a limited shelf life)

### IP-233 GOODRICH LATEX

Water base latex is one of the more simple materials used to make a flexible mold. Its ability to reproduce detailed surfaces is very good and the shrinkage is low. Apply by brushing one coat at a time over the model, allowing each coat to dry before additional applications. Mold may be built up with layers of cheesecloth between coats. Instruction sheet available on request.

1 pint Ship. wt. 2 lbs. 1 gal. Ship. wt. 11 lbs. 5 gal. Ship. wt. 55 lbs.

### IP-234 AMMONIA BASE LATEX

An ammonia based material which can be used as an inexpensive substitute for Goodrich Latex, although our mold shop has found the Goodrich Latex to be a significantly superior material in mold work, while ammonia base latex is a very good material for facilitating glaze decoration (see Decorating Products in the Glaze Section). Use with adequate ventilation.

1 pint Ship. wt. 2 lbs. 1 gal. Ship. wt. 9 lbs. 5 gal. Ship. wt. 50 lbs.

## SLUMP HUMP MOLDS (see Wheels, Clay Forming & Clay Handling Equipment section)

