

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 or contact 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 A-11	High-strength gypsum cement having very low setting expansion. Adapts to production on hard, strong, tough models of uniform and stable dimensional accuracy. Used for production of master models and Keller duplicating machines. Stiffening rate very rapid after setting action begins. Recommended for slurry casting technique.
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

DRYSTONE	Fast-casting gypsum cement that provides strong, durable casts without the need for dryers. Excellent compressive strength and good impact resistance. Enhanced flexural properties. Low absorption for reduced paint demand. Environmentally preferred to resin-based alternatives. Available in solid or hollow cast formulas.
FIBER ART STATUARY	Similar to Tuf-Cal and somewhat less expensive. Suitable for solid and hollow casting.
HYDROCAL ARCHITECTURAL	Essentially the same as FGR-95 but gray in color and less expensive. If you are painting your product, Hydrocal Architectural is a good alternative.
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.
HYDRO-STONE TB	Resists yellowing when exposed to sunlight. This modified Hydro-Stone formulation minimizes color variations. Used in high quality figurines or wherever coloring is a factor. Also may be used for density fill and simulated stone products.
REGULAR CASTING 20 & 45 MINUTE (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.
TUF-CAL 20 MINUTE	A special plaster blended with polymer and synthetic fibers. Engineered to provide higher green strength, greater chip and impact resistance than White Art, Casting plaster, or Hydrocal White.
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.

For additional technical data and for information that will assist you in selecting the proper USG product for your specific use, visit www.gypsumsolutions.com

PLASTER/GYPSUM MIXING INSTRUCTIONS

1. Weigh proper amount of room temperature water in a clean container. (Warmer water will accelerate the setting time.) Height of container should be approximately 3 times the diameter.
2. Weigh proper amount of plaster/gypsum.
3. Sprinkle the plaster/gypsum into the water. (Never pour water into plaster/gypsum.) As you near completion, small mounds of plaster will peak above the surface of the water. When all the plaster/gypsum has been added, allow the mixture to sit undisturbed while the plaster soaks up the water. (Several minutes).
4. **MANUALLY:** It is possible to get a good mix by using a spoon or wood dowel. Mix slowly and steadily from the bottom, using a side to side motion. Stirring in a circular motion will introduce undesirable air bubbles into the mix.

Consistency of final mix should be that of heavy dairy cream. (The "old timers" are sometimes seen "elbow deep in plaster" literally mixing by hand. This is a very dangerous method since plaster becomes extremely hot when setting, potentially resulting in severe burns.)

ELECTRIC MIXER: You can achieve a consistently good mix by using an electric drill with a Hanson plunge or Jiffy mixer. "Stir" at 1750 RPM while holding the mixer at 15° off vertical. This method is also quicker than the manual method discussed above.

STORAGE: Store plaster/gypsum in a warm, dry area, raised from the floor to avoid moisture absorption. The shelf life of all plaster/gypsum is limited but that life can be extended by storing in air-tight plastic containers.

CONSISTENCY AND SETTING TIMES

USG PRODUCT	RECOMMENDED CONSISTENCY (Parts of water by weight per 100 parts of material)	APPROXIMATE SETTING TIME (minutes)
CERAMI-CAL	40	18-23
DRYSTONE	19-20	27-37
DURACAL	24*	20-35
DURAMOLD	68	27-37
FAST CAST	12.5	25-35
FIBER ART	55	15-23
HYDROCAL ARCHITECTURAL	30-36	50-70
HYDROCAL A-11	42	16-20
HYDROCAL B-11	44	25-35
HYDROCAL FGR-95	30	50-70
HYDROCAL WHITE	45	25-35
HYDROPERM	100	12-19
HYDRO-STONE	32	17-20
HYDRO-STONE TB	32	17-20
NO. 1 POTTERY	70	27-37
PURITAN POTTERY	66	27-37
REGULAR CASTING	72	27-37
REGULAR POTTERY	74	27-37
TUF-CAL - 20 MINUTE	50	17-22
ULTRACAL 30	38	25-35
WHITE ART - 20 MINUTE	70	17-27
WHITE ART - 30 MINUTE	70	27-37

*Unaggregated; will vary with amount and type of aggregate used.

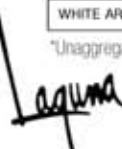
U.S.G. PRODUCTS PRICE LIST*

PRODUCT	100 LBS.	500 LBS.	1,000 LBS.	1 TON
CERAMI-CAL				
DRYSTONE - SOLID				
DURACAL				
DURAMOLD				
FIBER ART				
HYDROCAL A-11				
HYDROCAL B-11				
HYDROCAL FGR-95				
HYDROCAL WHITE				
HYDROPERM				
HYDRO-STONE				
HYDRO-STONE TB				
NO. 1 POTTERY				
NO. 1 POTTERY (50 LB. BAGS)				
PURITAN POTTERY				
REGULAR CASTING-20,& 45				
REGULAR POTTERY				
TUF-CAL - 20 MINUTE				
ULTRACAL 30				
WHITE ART-20				

PLASTERS STOCKED AT LAGUNA OH* (others by Special Order)

CERAMI-CAL (50 LB. BAGS)
 HYDROCAL A-11 (50 LB. BAGS)
 HYDROCAL WHITE
 HYDRO-STONE (50 LB. BAGS)
 NO. 1 POTTERY (50 lb. Bags)
 PURITAN POTTERY

*For large quantity pricing call for quote.



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

- SODATE RETARDER** By adding a small amount of Sodate Retarder, the setting time of plaster or gypsum can be delayed up to an hour. A quarter to two tablespoons is all that is needed per 100 pounds of plaster/gypsum. Dissolve in water before adding plaster/gypsum.
- 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.
- SNOW WHITE FILLER** Made by the high temperature calcination of gypsum which is then ground and air separated into a bright, white powder. Used in a variety of polymeric and cementitious systems to (1) minimize abrasion to processing equipment; (2) improve resistance to mild acids; (3) provide good surface appearance; (4) reduce shrinkage.
- 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.
- VERMICULITE** A lightweight expanded filler used to reduce weight in plaster/gypsum and cement objects.

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.	
VERMICULITE		Bag - Approx. 29 lbs.		Oversize: UPS shipping use 25 lb. rate.	

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-241 PLASTILUBE** Very similar to Purelube.
 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 14 oz. 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.
- IP-6050 ORANGE SHELLAC** Used to coat models made of clay, wood or plaster in the mold making process.
 1 quart 1 gallon

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.

	PRODUCT	SIZE	COLOR	EACH	10	30	60
1" WIDE	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				
1/2" WIDE	NL-205-18	18"	BLACK				
	NL-205-24	24"	GRAY				
	NL-205-36	36"	YELLOW				

GROOVE KNIFE

This knife has been designed to cut open a flexible mold in such a way that a groove is formed for locking the mold back into position for casting.

IP-252	Knife	Ship. wt. 1/4 lb.
IP-252A	Extra Blade	



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	



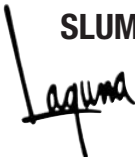
SURFORM ROUND FILE

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.
TM-483B	Extra Blade	



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



SCULPTURE AND MODELING MATERIALS

IP-235 BROWN WAX	Microcrystalline brown wax is a good modeling and sculpturing medium. This wax softens in the warmth of your hand and can be bent, rebent and reshaped. Available in ten pound slabs. 1 slab 6 slabs 12 slabs
IP-248 CAL-WAX	This off-white wax can be melted and cast into a mold or carved with any sharp tool. Good for fine detail. Can be sanded and buffed. Comes in blocks that measure approximately 2" x 2" x 1" and is sold by the pound. 1 lb. 5 lbs. 10 lbs. 50 lbs.
IP-249 SHEET WAX	Used in making master molds. Enhances precision of the cut-off and simplifies die maker's work. $\frac{3}{64}$ " x 12" x 24" $\frac{3}{32}$ " x 12" x 24"
IP-245 PLASTELINA	Plastelina is an oil base modeling clay that never hardens, and can be used time and time again. Adhering, non-toxic, pliable, and plastic (carries the Arts and Crafts Material Institute CP seal). For use by sculptors, model makers, clay animators and artists of all ages. Colors available in 1 pound blocks: Green. Colors available in 5 pound blocks: Flesh, Gray Green, Terra Cotta, White. 1 lb. block 10-1 lb. blocks 5 lb. block 8- 5 lb. blocks
IP-236 BEESWAX	Pure yellow beeswax. Used for sculpting. 1 lb. 10-1 lb. blocks

SUPPLIES FOR PRESSING DIES

MOLDDUCT 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.																					
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">PRODUCT</th> <th style="text-align: left;">SIZE</th> <th style="text-align: center;">25'</th> <th style="text-align: center;">50'</th> <th style="text-align: center;">100'</th> <th style="text-align: center;">400'</th> <th style="text-align: center;">750'</th> </tr> </thead> <tbody> <tr> <td>IP-301-8</td> <td>$\frac{1}{8}$" tubing</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>IP-301-4</td> <td>$\frac{1}{4}$" tubing</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	PRODUCT	SIZE	25'	50'	100'	400'	750'	IP-301-8	$\frac{1}{8}$ " tubing						IP-301-4	$\frac{1}{4}$ " tubing					
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PLASTIC TUBING	Used in pressing dies to connect moldduct to moldduct, or moldduct to air fittings. It is a transparent vinyl polymer with high tensile strength.																					
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IP-302-2	NO. 2 Fits outside $\frac{1}{8}$ " moldduct tubing																					
MOLDDUCT TIES	Used to attach the moldduct tubing to wire frame or reinforcing rod. IP-303 100 ties per bag 10 bags																					
COPPER PINS	Used to register the top die cavity to the bottom cavity. Made from machined and heat treated beryllium copper rod.																					
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FLEXIBLE MOLD MAKING PRODUCTS

There are a multitude of flexible mold materials ranging from simple, one-part latex to high performance, two-part Poly Sulfides, Poly Urethanes and Silicone mold rubbers. Pricing and applications vary significantly. This catalog offers the most popular materials, but many others are available by Special Order. **Caution:** Some of the multi-component compounds are not packaged in exact "usage ratios". Measure each component carefully, by weight or volume as stipulated in the product directions. Additional instructional information and Material Safety Data Sheets are available upon request.

POLYSULFIDE AND SILICONE SYSTEMS by Perma-Flex

IP-213 BLAK-TUFY This three component product contains reinforcing black pigment and is tough enough for most plaster shop use. It has reasonably low viscosity and pouring properties in the uncured form. BLAK-TUFY is suitable for many plaster shop uses including waste molds, intermediate working molds and prototype reproductions. Shore A hardness 23-25. Cure 16 hours at 80°F. Will withstand limited elevated temperature of 225°F - 240°F (approx).

POLYURETHANE FLEXIBLE MOLD SYSTEMS by Polytek

IP-216 EASYFLO 60 A two-part, super low viscosity polyurethane casting resin that pours like water and sets fast to a tough, non-brittle product. Easy 1:1 mix, rapid demold time of 15-30 minutes, and excellent bubble release make it ideal for highly detailed production applications. Accepts fillers readily. Ideal for casting decorative objects, production parts, tools, models, patterns, fixtures, duplicate masters, and more.

IP-217 POLY 1512 A versatile, two-part pourable polyurethane casting resin that can also be used as a mother-mold, just like fiberglass but without the smell, or for hard-facing carved foam. It's easy 1:1 mix by weight or volume makes it ideal for hobbyists and production applications alike. It can easily take fillers like Cab-O-Sil for brushed-on applications, bronze powder for cold-casting, micro-balloons and other dry fillers.

IP-218 POLYGEL 40 A two-part, easy to mix 1:1 polyurethane rubber that thickens to a brushable or trowellable consistency. Ideal as a blanket-mold material where you just have to hold a mold overnight. (It takes a week to make a mold using latex.) Polygel 40 molds can be used to cast plaster, cement, waxes and limited use with polyester, epoxy, and polyurethane resins using a proper release agent.

IP-333 POLY 74-30 A two-part, easy 1:1 mix, pourable liquid rubber that cures to a soft, flexible, high-strength RTV mold rubber. It is ideal for making durable, easy releasing block molds for casting gypsum, plasters, and waxes without release agents, but also excellent for casting cement, epoxy, polyester, urethane and acrylic with proper release agents. Mixed liquid rubber can be made brushable or trowellable by adding Cab-O-Sil. Hardness is Shore A 30, color is amber.

IP-332 RU-448 A two-part, easy 1:1 mix, pourable liquid rubber that cures to a medium hard, high-strength RTV mold rubber. Ideal for making durable, easy releasing block molds for casting gypsum, plasters, and waxes without release agents, but also excellent for casting cement, epoxy, polyester, urethane and acrylic, with proper release agents. Hardness is Shore A-60, color is amber.

Other Perma-Flex and Polytek products are available by Special Order.

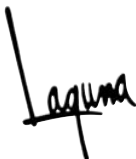
PRODUCT	UNIT SIZE*	SHIP. WT.	UNIT SIZE*	SHIP. WT.	UNIT SIZE*	SHIP. WT.
	2 QUART KIT		2 GALLON KIT		10 GALLON KIT	
IP-213 BLAK-TUFY	**	3 lbs.	**	12 lbs.	**	61 lbs.
IP-216 EASYFLO 60	**	3.8 lbs.	**	15.2 lbs.	**	76 lbs.
IP-217 POLY 1512	**	4 lbs.	**	16 lbs.	**	80 lbs.
IP-218 POLYGEL 40	**	4 lbs.	**	16 lbs.	**	80 lbs.
IP-333 RU-448	**	4 lbs.	**	16 lbs.	**	80 lbs.
IP-332 POLY 75-59	**	4 lbs.	**	16 lbs.	**	80 lbs.
IP-334 CAB-O-SIL	**					

Larger kits available on request.

*Unit includes all components as required but user must measure each component prior to mixing in order to ensure proper results. Each kit includes 1 container of each component (eg. 2 qt. kit contains 1 qt. of each.) Not all containers are filled to capacity.

**Call for price.

Cab-O-Sil for thickening Poly liquid rubbers and liquid plastics. Can allow pourable materials to be brushable.



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

<p>IP-233 GOODRICH LATEX</p>	<p>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.</p>
	<p>1 pint Ship. wt. 2 lbs. 1 gal. Ship. wt. 11 lbs. 5 gal. Ship. wt. 55 lbs.</p>
<p>IP-234 AMMONIA BASE LATEX</p>	<p>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.</p>
	<p>1 pint Ship. wt. 2 lbs. 1 gal. Ship. wt. 9 lbs. 5 gal. Ship. wt. 50 lbs.</p>

MOLD DRESSINGS

<p>IP-223 MOLD DRESSING</p>	<p>Mold Dressing is used to "wet" the surface of most flexible molds (polysulfides, urethanes, and latex) to reduce tension and help to obtain "pinhole" free castings of plaster/gypsum and cement reproductions. (Dilute with water-1/2 pint mold dressing to 3 gallons water).</p>
	<p>1 gal. Ship. wt. 10 lbs. 5 gal. Ship. wt. 55 lbs.</p>
<p>IP-251 MOLD RINSE</p>	<p>Similar to Mold Dressing but for use with Polyurethane molds. For plaster/gypsum casting, the mold must be wet before casting, but for casting cement the mold should be soaked in Mold Rinse for two days before using. (Dilute with water)</p>
	<p>1 gal. Ship. wt. 8 lbs.</p>

BODY CASTING AND MASK MAKING

The following products are designed for casting masks, body parts, or whatever you can imagine! They are the same materials used by artists for special props in **ALIENS**, **STAR WARS**, **TOTAL RECALL**, **DIE HARD**, **ROBO-COP** and many other block-buster movies.

<p>IIP-259 POLY LATE FALSE FACE</p>	<p>A one-part liquid which, when poured into a dry, unsealed gypsum mold, cures to a high strength flexible casting rubber. Poly Latex False Face Compound has been formulated to produce flexible hollow parts for such uses as novelty masks, flexible sculpture and animatronic applications. It can also be used with a dipping technique to create latex molds much faster than by brushing.</p>
	<p>2 lbs. 8 lbs. 40 lbs.</p>
<p>IP-255 CIRCLE K CK-245</p>	<p>This is an outstanding, 2 component silicone rubber used for making masks. It is designed to give a skin-like appearance, and can be used in any type mold. It can be cast or brushed, and the set-up time can be accelerated to 10 minutes (see below).</p>
	<p>1 lb. 10 lbs.</p>
<p>IP-257 ULTRA-FAST CATALYST</p>	<p>The addition of ULTRA-FAST CATALYST to Circle K silicones will accelerate the set-up time when you are in a hurry.</p>
	<p>1 lb. 8 lbs.</p>

"THE ART OF CREATING LATEX MASKS" VIDEO (V-100) AND WORKBOOK (V-100-A) - see Books and Video section of this catalog.

THE ART OF CERAMIC MOLD MAKING

The following useful guide to ceramic mold making is being reprinted here with the permission of its author, Anthony D. Bulone, a renowned sculptor, designer, model maker and master mold maker for more than 35 years. Anthony of Solvang, as he is known, has excelled in most areas of the plastic and ceramic fields with his most notable accomplishments being designing, sculpting and developing the model of the original Barbie Doll for Mattel and designing the first all plastic hobby kits for Revell, Inc.

NECESSARY MATERIALS:

- Model
- Modeling Clay (EM-217 or EM-210)
- Plaster (USG #1 Pottery)
- Orange Shellac (for sealing clay and other porous objects)
- Parting Agent (Mold Soap or Purelube)
- Baby Powder or Talc (for dusting prior to applying parting agent)
- Denatured Alcohol (for cleaning shellac brushes and thinning down shellac)

NECESSARY TOOLS:

- Wood/Wire Tool
- Wood Sculpturing Tool
- Metal Spatula or Knife
- Casting Boards (4)
- Work Board
- "C" Clamps (4)
- 3" Putty Knife
- Screwdriver
- Hammer
- Rubber Mallet
- Round File (coarse)
- Ruler or Yardstick
- Assorted Brushes
- Scale (0-60 lbs.)
- Metal Square
- Wooden Wedges
- Drill, 1750-2400 rpm
- Hanson, SuperSafe or Jiffy mixer
- Scooper
- 5 Gallon Plastic Container
- 1 Gallon Plastic Jar
- Stainless Steel Scraper
- Rubber Bands (banding)

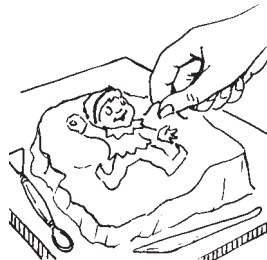
PROCEDURE:

Models made of clay, wood or plaster must be coated with 2 or 3 layers of thinned down orange shellac.

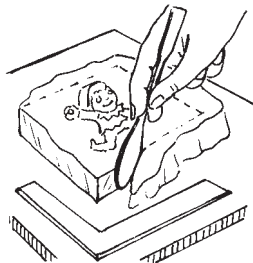
Step 1: First you must study the object from which you are to make the mold, to establish the Parting Line. Draw a line on the object with a dye-marking felt tip pen.



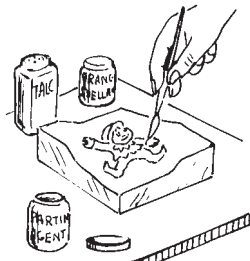
Step 2: Place the object on your Work Board so your parting line is somewhat parallel to your work surface. Proceed to Clay-Up with water base modeling clay around the object to your parting line, extend out for one inch from the widest points.



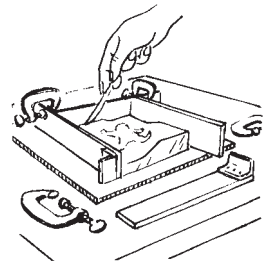
Step 3: When clay is all in place, smooth and leather hard, square off clay as shown. Using a soft brush, apply two thin coats of Orange Shellac over the object and the top surface of the clay parting line. After 15-20 minutes, apply talcum powder, dusting lightly.



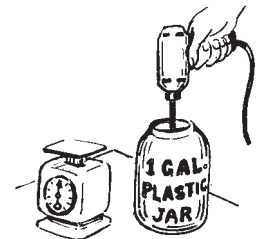
Step 4: Apply Parting Agent with a soft brush covering the entire surface. Dry your brush and pick up all excess Parting Agent, leaving a very slick surface on the object and parting line clay.



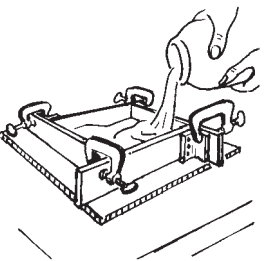
Step 5: Prepare your casting boards, wiping each with Parting Agent on front surface and edges. Assemble as shown with "C" Clamps. With wooden tool, seal edges where clay parting line meets the insides of the board as shown.



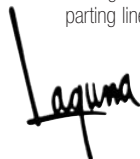
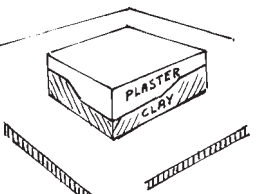
Step 6: READY FOR CASTING. For the size of the object shown in these drawings and the apparent bulk of parting line around the model, we will use the following proportions: With your 1 gallon plastic jar, weigh out 1 1/2 lbs. of No.1 Pottery Plaster; add plaster to 1 lb. of water. Always add plaster to the water, never water to plaster.



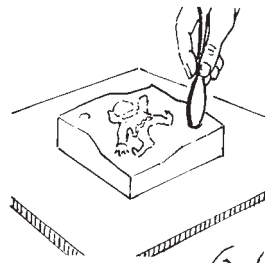
Step 7: Let the plaster soak for 3-5 minutes, then mix with your drill mixer. Mix for about 1 1/2 minutes, then pour over boxed pattern. Plaster should cover at least 1 inch over the highest point on the Model.



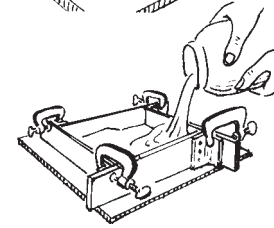
Step 8: After 20 minutes, take casting boards apart, scrape off top of plaster and bevel the edges slightly. Grasp opposite sides of the plaster/clay mold and gently twist to loosen clay from the work board. Turn mold over and proceed to lift off clay from model and plaster half of the mold.



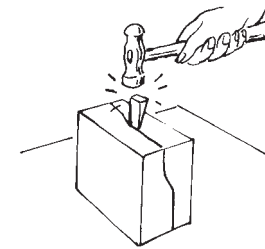
Step 9: If orange shellac transfers to plaster half, clean with alcohol. Clean all clay particles from the mold surface. Now is the time to carve Keys into the plaster parting line. You can make Keys several ways including using the round end of large spatula or a coin (nickel or quarter).



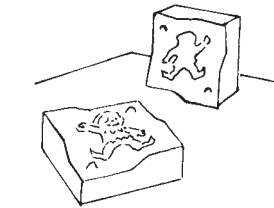
Step 10: Prepare your casting boards again, dust the model and parting line area with talcum, brush on parting agent as in Step 4. Assemble the boards as in Step 5 with "C" Clamps and repeat Steps 6 and 7 for casting the second half of the mold. Let the plaster set for 1/2 hour, remove the casting boards, scrape top of the mold, bevel the edge and corners.



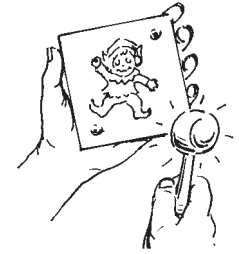
Step 11: Now you are ready to open the mold. Scrape off any plaster that may have run down the side of the first half of the mold. Using a flat end screwdriver or a wooden wedge, insert it at the parting line; tap it gently with the hammer. As soon as the mold starts to part, turn the mold over and repeat the process. When the mold is loose, grasp each half and gently pry apart.



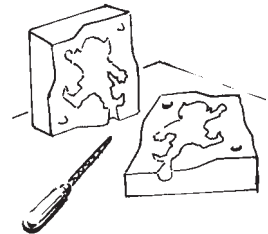
Step 12: The model will usually stay in half of the mold. At this point, how accurate you were with your parting line, what material your model was made of, and how hard or soft that material was, will dictate how easy or hard it will be to get the model out of the half plaster mold.



Step 13: If the model was made of clay, you can ease it out by using the screwdriver. But if you have to do any prying like a lever, place a flat piece of wood under your screwdriver so you won't chip the plaster mold. If your model is made of metal, glass or ceramic, you might have to use other means, such as air pressure or tapping all around the model with a rubber mallet. In some cases, I have chipped out the model thus destroying it. But keep in mind, that at this point the mold is the main object because a good, usable mold can reproduce 50 to 150 objects.



Step 14: With both halves now clean of any particles, we now determine where to carve in your Pour Hole. It can be in one half or in both halves as shown. Bevel the outer edge of the parting line on both halves and bevel all outside edges of the mold. This keeps that edge from chipping.



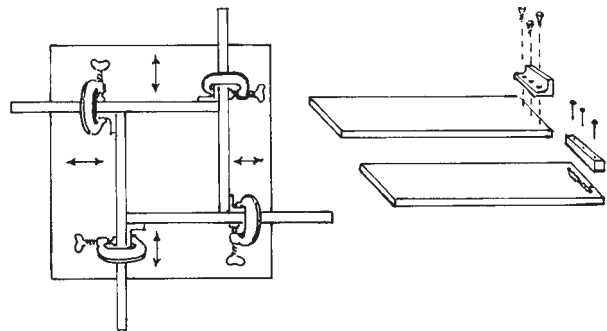
Step 15: At this time, check each half of the mold for any under-cuts that can be cut back. Let your mold dry out for 4 or 5 days depending on your weather conditions. NOW YOU HAVE A MOLD.

GLOSSARY OF TERMS:

- Clay-Up** - Filling in around a model to develop the parting line.
- Leather hard** - Clay dried to consistency of leather.
- Model** - Object used to make a mold.
- Parting Agent** - A material used over an object that leaves a slick film.
- Parting Line** - The line which divides your model.
- Work Board** - Board on which the model is prepared for casting.
- Dry Brush** - Wiping your brush so it will pick up excess material from the model or mold.
- Keys** - Round or oval shape depressions with matching counterpart usually on flat section of parting line of mold.
- Pour Hole** - Carved inlet or opening in mold to pour ceramic or porcelain slip into.

MAKING YOUR OWN CASTING BOARDS

Casting Boards are used to form a box around a clay-up object before casting your plaster mix into it. These drawings show two different ways to make corner angles for clamping the boards together.



Boards can be moved in or out from each other to make a small or large square or rectangle. Boards of varying sizes can be made.