

**EasyFlo™ Series  
Poly Urethane Liquid Plastics**

*Super Low Viscosity Casting Resins Pour Like Water, Set Fast*

**DESCRIPTION:** EasyFlo™ liquid plastics are useful for casting decorative objects, production parts, tools, models, patterns, fixtures, duplicate masters and more. Extremely low viscosity provides for easy mixing, excellent detail penetration and the most bubble-free castings without employing vacuum degassing and pressure casting techniques. A rapid demould time makes EasyFlo™ ideal for high volume, fast cast applications. EasyFlo™ products can be easily filled for various coldcast techniques such as cold-cast bronze, marble, etc. Use EasyFlo™ 60 when lowest viscosity is needed for solid pours. EasyFlo 95 is useful when longer working time is needed to complete a pour, but thin parts require a longer demould time to develop hardness. Moulds used to cast thin parts with EasyFlo™ 95 may need to be preheated (100 to 120°F) to reduce surface bubbles and decrease demould time. EasyFlo™ 120 is best for rotocasting or slush casting to create hollow parts. EasyFlo™ Clear is ideal for colour casting (using PolyColours) or applications involving fillers that are intended for visual appeal. EasyFlo products can be easily colour-cast or painted or machined. Thin-walled castings made from EasyFlo™ have surprising strength and lack the brittleness typical of other low viscosity, fast polyurethane resins.

**MOULD PREPARATION:** EasyFlo™ reproduces minute detail from a mould or pattern but may stick or foam when poured on improperly prepared surfaces. A trial casting on a surface finish similar to the final mold should be made to avoid damaging a valuable mold. Polyethylene and silicone rubber molds, such as TinSil<sup>7</sup> 70 and PlatSil<sup>7</sup> 71 and 73 Series, do not require a release agent, but a barrier coat may be helpful. Latex, polyurethane rubber or metal moulds must be dry and require a coat of a suitable release agent, such as Pol-Ease<sup>7</sup>2300. Poly 74 Series polyurethane mould rubbers are a good choice.

**FEATURES**

- Easy 1:1 mix, by volume
  - Rapid demould
  - Extremely low viscosity
- No pre-stirring of A or B necessary
  - Reproduces finest detail
  - Tough, non-brittle formula
  - Excellent bubble release
- Accepts high filler levels readily
- Reduce need for pressure or vacuuming

**PHYSICAL PROPERTIES**

	<u>EasyFlo<sup>M</sup> 60</u>	<u>EasyFlo<sup>M</sup> 95</u>	<u>EasyFlo<sup>M</sup> 120</u>	<u>EasyFlo<sup>M</sup> Clear</u>
Mix Ratio (By Volume)	1A:1B	1A:1B	1A:1B	1A:1B
Mix Ratio (By Weight)	100A:90B	100A:90B	100A:90B	100A:90B
Hardness, Shore D	65	65	65	72
Pour Time, 1 lb. mix (min) (faster with 15X)	2 - 2.5	5	2 - 2.5	2 - 2.5
Demould Time (hr) (faster with 15X)	15 - 30	20-60	15 - 30	15 - 30
Specific Gravity	1.03	1.03	1.03	1.03
Colour, Cured	White	Off-White	White	Light Yellow
Initial Mixed Viscosity (cP)	60	95	120	110
Specific Volume, in <sup>3</sup> /lb	26.9	26.9	26.9	26.9
Maximum Exotherm	230°F(110°C)	206°F(95°C)	200°F(94°C)	208°F(95°C)

**MIXING:** Prior to mixing Parts A and B, be sure that all molds and equipment are prepared. Parts A and B should be above 60°F. Use metal or plastic mixing vessels and spatulas to avoid introducing moisture (i.e., with paper or wood tools). Measure equal volumes of A and B into a mixing container such as a polyethylene pail. Mix immediately, thoroughly scraping sides and bottom for one minute. Pour mix into cavity as quickly as possible. Once the containers of Parts A and B are opened, they should be used or resented tightly as atmospheric moisture contamination may cause foaming of the plastic. Poly Purge™, a dry gas product, can be sprayed into opened containers of EasyFlo™ to lengthen shelf life once opened.

**CURING:** Castings should be allowed to remain in the mould until thoroughly cured. Parts demoulded too soon may be subject to deformation. Use of pre-warmed molds will hasten curing. Low temperatures will slow the curing and extend demould time.

**ADDITIVES:** Part 15X Catalyst and Part F Foamer should be stirred into the Part B before adding Part A. Fillers should be added after A and B are mixed. Part X is a powerful catalyst to increase the speed of curing. A few drops in a one pound mix speeds the cure significantly. Exotherm (heat of reaction) and thus shrinkage on cooling is increased. Experiment to determine the right amount of Part X to use but never use more than, 1% Part X of the total weight of the mix or the final physical properties may be affected. Part F can be added to EasyFlo<sup>™</sup> Part Bs at levels not to exceed 1% by weight. Microballoons can be added to create a wood like, lower density material. Bronze powder, calcium carbonate, fly ash, sand, granite or other stone-like fillers can be added as desired. It is imperative that any filler be thoroughly dried before mixing with resin.

**FINISHING:** Cured EasyFlo<sup>™</sup> products will yellow slightly and chalk when exposed to sunlight and should be painted or sealed for exterior use. Castings can be drilled, sanded and machined. If they are to be painted or coated, adhesion of the coating should be checked carefully over a period of time to determine that it is satisfactory for the intended use. If all mould release is removed by detergent washing, most oil paints work well.

**CLEAN UP:** Tools should be scraped clean before the plastic is hard. Solvents such as alcohols (shellac thinner), acetone or MEK are good cleaning solvents, but are highly flammable and must be handled with extreme caution. Work surfaces can be waxed or coated with Pol-Ease<sup>7</sup> 2300 Release Agent so hardened resin can be removed.

**SAFETY:** Before use, read product labels and Material Safety Data Sheets. Follow safety precautions and directions. Contact with uncured products may cause eye, skin and respiratory irritation and dermal and/or respiratory sensitization. Avoid contact with skin and eyes. If skin contact occurs, remove with waterless hand cleaner or alcohol then soap and water. In case of eye contact, flush with water for 15 minutes and call physician. Use only with adequate ventilation. Poly Plastics are not to be used where food or body contact may occur. Poly Plastics burn readily when ignited. Care should be taken with sanding dust and other easily ignitable forms of these products.

**STORAGE LIFE:** At least six months in unopened containers stored at room temperature (60-90°F).

## ACCESSORIES

### Part 15X Catalyst

1 oz, 1 pt (1.0 lb), 1 gal (8.0 lb), 5 gal (40 lb)

### Part 15F Foamer

1 oz, 1 pt (1.0 lb), 1 gal (8.0 lb), 5 gal (40 lb)

### Bronze Powder

2 lb can, 10 lb can, 110 lb can

### Poly Fiber

2 lb bag

### Pol-Ease<sup>7</sup> 2300 Release Agent

12 oz can

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