



Smooth-Cast® 325, 326 & 327

ColorMatch® Series Ultra-Low Viscosity Liquid Plastics

PRODUCT OVERVIEW

Smooth-Cast® 325, 326 & 327 ColorMatch® are new fast-cast resins that were developed specifically for adding color pigments and fillers to achieve true color representation or filler effect. The ColorMatch® Series is formulated “color neutral”. Small amounts of pigment will yield accurate, vivid colors from cured castings (use of Smooth-On pigments is highly recommended). The ColorMatch® Series offers the convenience of a 1A: 1B mix ratio by volume and has a very low viscosity. Demold times range from about 10 minutes to 2-4 hours (depending on product, mass and mold configuration). SC 325, 326 & 327. Note; Large mass castings will get very hot and shrink more, depending on mold configuration.

SC 325, 326 & 327 also readily accept fillers (such as URE-FIL® 3 from Smooth-On). Because of its neutral color, SC 325 is ideal for creating marble and wood grain casting effects, or duplicating the look of real metal by adding bronze, brass or other metal powder (see Smooth-On technical bulletin for metal cold casting). Applications for the ColorMatch® Series plastics include making pigmented prototype models or figures, special effect props, reproducing small to medium size sculptures, decorative jewelry, etc.

TECHNICAL OVERVIEW

<i>Product</i>	<i>Pot Life</i>	<i>Demold Time</i> (Depending on mass)*	<i>Shrinkage</i>	<i>Mixing Ratio</i>	<i>Color</i>	<i>Durometer</i>
Smooth-Cast® 325	2.5 minutes	7-10 minutes	.01 in./in.	1:1 by volume	Clear Amber	Shore 72D
Smooth-Cast® 326	7-9 minutes	60 minutes	.0075 in./in.	1:1 by volume	Clear Amber	Shore 72D
Smooth-Cast® 327	10-20 minutes	2-4 hours	.0075 in./in.	1:1 by volume	Clear Amber	Shore 72D

*Castings made with Smooth-Cast® ColorMatch® liquid plastics will remain in a “rubbery” phase and stay semi-rigid before turning into a rigid solid. Time to become solid depends on mass. Large mass castings will get very hot and shrink more, depending on mold configuration.

Components	Color	Viscosity	S.G. g/cm³	S.V. cu. in./lb.
Mixed Part A+B	Clear Amber	100 cps	1.07	27.7

Surface Preparation

Preparing To Mix

Measuring

Preparation – All liquid urethanes are **moisture sensitive** and will absorb atmospheric moisture. Mixing tools and containers should be clean and made of metal, glass or plastic. Materials should be stored and used in a warm environment (72° F / 22° C). These products have a limited shelf life and should be used as soon as possible. Mixing and curing should be done in a well-ventilated area. Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk. **Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.**

Applying A Release Agent – A release agent is necessary to facilitate demolding when casting into or over most surfaces. Use a release agent made specifically for mold making (Universal® Mold Release or Ease Release® 200 available from Smooth-On or your Smooth-On distributor). A liberal coat of release agent should be applied onto all surfaces that will contact the plastic.

~IMPORTANT: To ensure thorough coverage, lightly brush the release agent with a soft brush over all surfaces. Follow with a light mist coating and let the release agent dry for 30 minutes. Most silicone rubber molds usually do not require a release agent unless casting silicone into the mold. Applying a release agent (such as Mann Ease Release 200), however, will prolong the life of the mold.

Each Time . . . Shake or stir both Part A & Part B before using.

Pre-Mix Pigment Or Fillers With Part B . . . for consistent results, pigment or fillers should be added by weight each time. Some "test" castings may have to be made until desired affect is achieved. Add desired amount of pigment or filler to ColorMatch® Part B and blend thoroughly to a uniform consistency before adding Part A.

Measuring

Mixing

Pouring

Curing

Performance

How Much Pigment or Filler? Pigment Example: Generally, 0.5% - 1% Smooth-On pigment added by weight of Part B will yield rich, vibrant color. For translucent effect, add 0.1% pigment. **Metal Cold Casting:** Ask for our Technical Bulletin On Metal Cold Casting. Because end-user requirements vary for desired finished effect, we can not offer all pigment or filler loading percentage possibilities. Again, "test" castings may have to be made until desired effect is achieved.

Mixing – Materials should be stored and used in a warm environment (72° F / 23° C). **Shake or stir Part A & Part B before using.** Add required amount of pigment or filler to Part B and **mix thoroughly.** Add Part A (equivalent to amount of Part B) and mix thoroughly. Stir slowly and deliberately making sure that you scrape the sides and bottom of the mixing container several times. Be careful not to splash low viscosity material out of container. **SC325 sets up quickly.** Do not delay between mixing and pouring.

IMPORTANT: Shelf life of product is drastically reduced after opening. Remaining product should be used as soon as possible. Immediately replacing the lids on both containers after dispensing product will help prolong the shelf life of the unused product. **XTEND-IT® Dry Gas Blanket** (available from Smooth-On) will significantly prolong the shelf life of unused liquid urethane products.

Pouring – For best results, pour your mixture in a single spot at the lowest point of the containment field and let the mixture seek its level. This will help minimize air entrapment. **Note; Large mass castings will get very hot and shrink more, depending on mold configuration.**

Curing – Warning: Fumes, which may be visible as this product starts to "gel" and cure, will dissipate with adequate ventilation. Only use this product with room size ventilation and do not inhale/breathe fumes. Castings will be extremely hot immediately following cure and may burn the skin. Let cool to room temperature before handling. SC 325 will cure in 7-10 minutes*, SC 326 in 30 minutes* and SC 327 in 2-4 hours* depending on mass and mold configuration. Post curing (heating your casting to 150°F/65°C) for 4 – 6 hours increases physical properties and performance. Castings made with Smooth-Cast® ColorMatch® liquid plastics will remain semi-rigid longer than other Smooth-Cast® resins depending on mass.

Performance – Cured castings are rigid and durable. They resist moisture, moderate heat, solvents, dilute acids and can be machined, primed/painted or bonded to other surfaces (any release agent must be removed). If machining cured material, wear dust mask or other apparatus to prevent inhalation of residual particles. Castings can be displayed outdoors after priming and painting. Unpainted castings will yellow over time - more quickly when exposed to ultra-violet light. Because no two applications are quite the same, a small test application to determine suitability is recommended if performance of this material is in question.

Safety First!

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The material safety data sheet (MSDS) for this or any Smooth-On product should be read before using and is available on request.

All Smooth-On products are safe to use if directions are read and followed carefully.

Be careful. Part A (Yellow Label) contains methylene diphenyl diisocyanate. Vapors, which can be significant if prepolymer is heated or sprayed, may cause lung damage and sensitization. Use only with adequate ventilation. Contact with skin and eyes may cause severe irritation. Flush eyes with water for 15 minutes and get immediate medical attention. Remove from skin with soap and water. Part B (Blue Label) is irritating to the eyes and skin. Avoid prolonged or repeated skin contact.

If contaminated, flush eyes with water for 15 minutes and get immediate medical attention. Remove from skin with soap and water.

When mixing with Part A, follow precautions for handling isocyanates. If machining cured SC325, wear dust mask or other apparatus to prevent inhalation of residual particles.

Important: The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.

Call Us Anytime With Questions About Your Application

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