SMASH! Plastic

"Breakaway Glass" Plastic

PRODUCT OVERVIEW

SMASH!™ Plastic is a new urethane liquid plastic designed to shatter/crumble on impact ("breakaway glass"). *SMASH!*™ is water clear and, once fully cured, shatters like glass. It can be cast solid in thin sections to make window panes or rotationally cast to form hollow bottles, jars or other glass-like objects to be used as breakable props for movie and stage productions. Maximum recommended thickness is 1/8" (0.33 cm.).

SMASH!™ is a room temperature cure system that is easy to use – mixed 1A: 1B by volume (1 cup + 1 cup). Low viscosity ensures easy mixing and pouring. Cured castings are ***UV RESISTANT.*** Vibrant colors and color effects are achieved by adding pigment dispersions.

CAUTION: NOT FOR HOME USE. THIS PRODUCT IS FOR INDUSTRIAL USE ONLY. **Proper ventilation, A NIOSH Approved Respirator and Protective Clothing are required to minimize the risk of inhalation and dermal sensitization. If breathing is affected or a dermal rash develops, immediately cease using this product and seek medical attention. Read MSDS before using.**

TECHNICAL OVERVIEW

Key Values: ***~Mix Ratio****:* 100A : 100B volume . ***~Shore Hardness:*** 80D

~ ***Pot Life****:* 5 minutes at room temp. ***~Demold time:*** 90 minutes NOTE: Can be broken after 6 hours.

Properties	Viscosity	G/CC	Cu. In./Lb.	Shrinkage	Mix Ratio
Part A	300 cps	1.04	-	-	100 pbv or pbw
Part B	1800 cps	1.03	-	-	100 pbv or pbw
Mixed	900 cps	1.036	26.7*	.0001 in/in at 1/8" - 0.33 thickness	

* A gallon unit of Smash Plastic will yield 23.7 square feet of window panes at 1/8-inch thickness.

Preparation ***Use Mold Release Agent*** ***Measure & Mix***

Preparation . . . Proper Ventilation Is Essential! If inhaled in significant concentrations, fumes may effect breathing and cause skin rashes (sensitization). To minimize exposure risk, use room size or better ventilation. An exhaust vent will offer additional protection. A NIOSH approved Full or Half Face piece respirator with an organic vapors cartridge will also offer good protection (follow OSHA guidelines for respirator use). Mixing tools and containers should be clean, dry and made of metal, plastic or glass. Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk. (Refer to safety information on reverse side of this technical bulletin.) **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.**

Preventing Cure Inhibition . . . If casting into silicone rubber, use Mold Max™ silicones for best results. Cure inhibition in some silicone rubber products is possible – especially if the silicone rubber is new (less than 60 days old). This condition is characterized by a tacky surface at the interface of the cured plastic and silicone rubber. Silicone molds should be fully cured and/or post cured prior to casting material. If you are unsure about surface compatibility, a trial casting should be made.
Apply Universal Mold Release to mold surface prior to casting to ensure easy demold of fragile castings.

Measuring . . . Materials should be stored and used in a warm environment (72° F / 22° C). This product has a limited shelf life and should be used as soon as possible. The proper mixing ratio is 100A:100B by weight or volume. Dispense equal amounts of Parts A and B into a mixing container and mix thoroughly for 90 seconds, making sure you scrape the sides and bottom of the container several times. If coloring or adding filler, add filler or tint to Part B and pre-mix thoroughly before adding Part A. **IMPORTANT:** Shelf life of product is drastically reduced after opening. Immediately replace container lids after dispensing. Use remaining product as soon as possible. Purging opened Part A containers with XTEND-IT dry gas blanket (available from Smooth-On) before resealing will significantly extend shelf life of unused product.

Vacuum Degassing *Casting* *Rotocasting*

If **vacuum degassing** prior to pouring, subject mixture to 29 h.i.g. mercury in a suitable vacuum chamber for 2 -3 minutes or until mixture rises, breaks and falls. Allow for 3 to 4 times volume expansion in mixing container. Do not vacuum too long, as this material gels quickly.

***Pouring - Be Careful* – 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. Do not spill on skin. Pouring Into Mold Cavity – pour material in the lowest spot of mold cavity and let material rise and seek its level.

Rotationally Casting - Pour material into mold and rotationally cast for 7 – 10 minutes.
Estimating the amount of material you need to build 1/8" – 0.33 cm thickness on your rotationally cast piece may take some practice & experimentation.

Demold *Curing* *Usage*

Demold – After 90 minutes, plastic is cured enough to be removed from the mold. Plastic is very fragile, so be careful removing your casting from the mold. Applying Universal Mold Release to mold surface should aid in removing the casting from your mold. The longer this material cures the more brittle it becomes, reaching full "brittleness" in 24 hours.

Temperature – When castings are *exposed* to temperatures above 80°F/26°C, they may soften and warp. Store castings at or below room temperature for 24 hours prior to use.

Usage – Inanimate Object: Let material cure for at least six hours prior to "smashing" against inanimate object (for example, on the floor, a wall, etc.).

Usage – On A Person – Before "smashing" a cast piece over someone's head, make sure that the wall thickness in all directions is not more than 1/8" – 0.33 cm. Also, let the material cure for at least 16 hours at room temperature to become fully "brittle".

Warning: Smashing a cast piece that is not fully cured or has a wall thickness greater than 1/8" – 0.33 cm against a body part may result in serious physical injury.

Safety First

The Material Safety Data Sheet (MSDS) for this or any Smooth-On product should be read prior to use and is available upon request from Smooth-On. All Smooth-On products are safe to use if directions are read and followed carefully.

Be careful. Part A is a modified aliphatic diisocyanate. Vapors, which can be significant if heated or sprayed, 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 seek immediate medical attention. Remove from skin with waterless hand cleaner followed by soap and water Refer to MSDS. Part B is irritating to the eyes and skin. Avoid prolonged or repeated skin contact.. Remove from skin with soap and water. If contaminated, flush eyes with water for 15 minutes and seek immediate medical attention. Use only with adequate ventilation

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.

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