S.A.M. Epoxy Crystal Clear Pro

Characteristics

- Hard or flexible
- Unrivaled UV stability for long lasting clear colorless castings.

SAM Epoxy Clear Pro, is a unique epoxy system developed for decorative applications, such as thicker castings.
It is completely clear and colorless and free of solvents and free of CMR substances. This formula provides unparalleled UV stability.
Excellent optical properties and no shrinkage are the main features of this system
Compatible with most surfaces such as glass, wood, cement, stone, ceramic, metal, this system adapts to most requirements of artists and designers.
By varying the hardener, a hard or flexible result can be achieved.

Technical properties

Mixing ratio (weight)	[A:B]	100:40
Geltime 500 gr. @ 23°C*	[hours]	See table
Demould time 500 gr @ 23°C*	[hours]	See table
Fully cured after @ 23°C	[days]	14
Viscosity mixture	[mPa s]	292
Color		Crystal clear
Hardness	[Shore D]	See table
Density	[g/cm^3]	1,06
Mininum thickness	[mm]	5
Maximum thickness **	[mm]	90
Temperature resistance	[°C]	46

** With larger quantities, the processing time and curing time will be shorter!*
*** We recommend not to process the maximum amount in one go if you have little experience. If you still want to do this, work at 18°C with a mixing bucket with a large bottom / diameter and take into account a very short processing time!*

Processing
Make sure the surface is tight and not porous. Porous surfaces can cause air bubbles in the epoxy. Use a thin layer of epoxy or another primer to close the surface of first.

Always use safety gloves and goggles when handling this material. Process the resin at room temperature (18-23°C) and at a humidity below 70%. To avoid deformation in the surface, the temperature must remain constant throughout the curing process. Also avoid direct sunlight through a window and prevent drafts.

Add the A and B component in the correct proportion and mix well. Allow enough time for mixing (2-3 minutes) and make sure that the corners and bottom of the mixing bowl have also been included. Optionally, you can pour the contents into a second container and then mix again. Now add any color effects and stir again. Let air bubbles escape for a minute. If necessary, help by vibrating / rattling the bowl. Make sure that the product does not get too hot!

The Epoxy resin is now ready for use. Pour the mixture into your mold or prepared model with a thin stream.

Please note, if you are making larger quantities, use a pitcher with a large base. Avoid a thick layer in the mixing bowl because it heats up very quickly! Then work at 18°C.

The best way to remove air bubbles is with Epoxy vent or by means of a flame. Do not use flames if you have diluted the epoxy with alcohol or other flammable products.

Post-baking at 40°C for 8 hours improves the properties of the epoxy such as temperature resistance and hardness. Post-baking should only be done when the epoxy is already hard but still a bit tacky.

Mix ratio A / B in weight (Mix ratio in volume)	100/40 (2:1)	100/50	100/60	100/70	100/80	100/90 (1:1)
Hardness Shore D after 14 days @23°C	84	82	78	67	43	21
Shore D hardness after 8 hours @ 40°C	86	84	83	75	55	35
Stretch after 14 days @23°C	2.8%	-	-	-	-	74%
Stretch after 16 hours @30°C	2.3%	-	-	-	-	85%
Processing time 500 grams @23°C [Hours]	10					24
Curing time 500 grams @ 23°C [Hours]	19					72
Shock resistance	35 J/m					450 J/m
Tensile force [MPa]	66					18
Flexural strength [MPa]	105					15
Flexural modulus [MPa]	3010					550

Use /Do:

If you are going to apply the resin in several layers (multi-layered work)

Wet on wet*:* When pouring a second layer of a liquid into a first layer of epoxy liquid, you need to make sure that the exothermic reaction has completely dissipated. An exothermic reaction is a reaction in which energy is released. In this case, heat.

If you want to be sure of this, you wait until the second layer is no longer sticky, but you still see a fingerprint in the epoxy.

Wet on dry: It is necessary to sand and dust the previous layer.

Storage
Product stored in tightly closed packaging between 15 and 25°C has a shelf life of at least 1 year.

Safety information
Contact with the skin must be avoided. Causes skin irritation. May cause an allergic skin reaction. Wear protective gloves when handling this product. Always work in a well-ventilated area. Toxic to aquatic life with long lasting effects.

Skin contact: Remove all contaminated clothing and footwear immediately unless stuck to the skin. Wash immediately with plenty of soap and water.
Eye contact: Flush the eye with running water for 15 minutes. Consult a doctor.
Ingestion: rinse mouth with water. Consult a doctor.
Inhalation: Remove victim from exposure, taking care of your own safety. Consult a doctor.

For further information, see the safety data sheet at www.Siliconesandmore.com.