



MACH-DYNAMICS®

TECHNICAL DATA SHEET
A-A-56032
Ink, Marking, Epoxy Base
Semi-Paste, Two-Part
Standard Formulation

A two-component semi-paste epoxy. Formulated to A-A-56032. Each kit meets Type I, II & III. MIL-I-43553 was replaced by A-A-56032.

Superior adhesion to epoxy, glass, metal or other nonporous surfaces. Excellent resistance to abrasion. Cures at room temperature. Force cure options are available.

Colors per FED-STD-595. VOC for Black when mixed is 3.07 lbs/gallon.

This is a room temperature cure ink, dries to touch in 6-8 hours, dries to handle in 24-hours, and requires 4-7 days to develop solvent resistance. May also be force cured by heating at one of the following temperature/time cycles:

150° F (66° C)	200° F (90° C)	250° F (121° C)	300° F (149° C)	350° F (177° C)
90 minutes	60 minutes	30 minutes	10 minutes	6 minutes

Under normal conditions, pot life is 4-5 hours after the two components are mixed. Higher room temperature will shorten pot life. Storage temperature 40° - 90°F. Use within 12 months from date of manufacture is recommended. Storage in refrigerator is recommended.

Stirring:

Open container of the *Base component*. Thoroughly stir the entire contents of the Base component container, close container. Open the *Catalyst component* container. Thoroughly stir the entire contents of the Catalyst component container, close container. Repeat the above procedure prior to each use. Keep component containers tightly sealed when not in use.

Measuring and Mixing:

Measure 2-parts ink to 1-part catalyst by weight. Measure each component to the nearest gram. Mix together thoroughly. Allow an induction period of 30 minutes. Ref.: Viscosity: 30,000 – 40,000 cps. [Quart kit (2:1 ratio) consist of: 960 g Base to 480 g Catalyst]



Established 1999
Cage Code 1RRC4

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Note: Spreading an ink film at 11" x 11" x .005" equals approximately 0.60 in³; which is approximately 10 cubic centimeters (10cc). 1-Quart is equal to 946cc (57.7 in³).

Ink Film Thickness (inches)	L" x W" x H"	Cubic Centimeters (in ³)
0.001	24.5" x 24.5" x .001"	9.8 (0.60)
0.002	17.5" x 17.5" x .002"	9.9 (0.61)
0.003	14.2" x 14.2" x .003"	9.8 (0.60)
0.004	12.25" x 12.25" x .004"	9.8 (0.60)
0.005	11" x 11" x .005"	9.8 (0.60)

Application:

When used with a rubber stamp, roll the ink into a thin draw down on a glass, metal or plastic plate with a Breyer roller or similar device before transferring to the stamp.

For manual applications, place a small amount of ink (mixed with catalyst) on a smooth, flat, clean plate of glass, aluminum or stainless steel. Roll it out to a very thin film and gently ink the rubber stamp.

Thinner:

Use a minimum amount to achieve desired consistency. Use only recommended thinner, as use of other thinners will adversely affect this product. Use only #0126 Thinner.

Thinners should be used sparingly, if at all. Excessive use of thinners will result in poor cured ink properties.

Cleaner:

Use only recommended cleaner with this product for best results.

Use #0127 Cleaner. Cleaner is for use prior to ink cure only.



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Using Epoxy Inks

For best results, when using epoxy inks, surfaces to be printed must be clean and dry. The work area must also be clean including the air. Any acid or alkaline contamination will result in poor adhesion and poor chemical resistance of the cured ink.

When using two-part epoxy inks, the portions of ink and catalyst must be weighed accurately and mixed thoroughly. These two-part epoxy inks are cured at room temperature, however, they may be force cured by heating. Please refer to the recommended cure schedule on the data sheet for the particular ink you are using. When the pot life of the ink is ending, the ink becomes increasingly difficult to manipulate, resulting in poor printing. Do not add thinner at this time. To prevent poor adhesion and poor chemical resistance in the cured ink, discard the “old” ink and mix fresh portions of the ink and catalyst together.

Semi-paste Epoxy inks are recommended for manual or automatic rubber stamp and offset equipment. For manual applications, place a small amount of ink (mixed with catalyst if using a two-part system) on a smooth, flat, clean plate of glass, aluminum or stainless steel. Roll it out to a very thin film and gently ink the rubber stamp. This gives a sharper and clearer print than the silkscreen versions of the Epoxy inks. Silkscreen grades are available.

Thinners should be used sparingly, if at all. Excessive use of thinners will result in poor cured ink properties. If a lower viscosity ink is required, use our A-A-56032 silk screen formulation.



DANGER! Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. **IF SWALLOWED:** Do NOT induce vomiting. Get medical advice/attention. **IF ON SKIN (or hair):** Rinse continuously with water for several minutes. Remove/Take off immediately all contaminated clothing. **KEEP OUT OF THE REACH OF CHILDREN. READ SDS BEFORE USE.**



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FIRST AID MEASURES

Ingestion: If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathing, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.



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