

CLONE ANY PART QUICKLY WITH



QUICK-SETTING COMPOUND

MAKES ACCURATE HARD PLASTIC REPRODUCTIONS IN 6 TO 8 MINUTES



A proven self-curing proofing compound for
checking • Surface Finish • Angles & Radii •
Die Cavities • Dimensions • Threads & Contours

Also Ideal
FOR QUICK & ACCURATE FABRICATION OF JIGS,
FIXTURES, & TOOLING

APPLICATION AND INSTRUCTIONS - CATALOG F-215



The finest plastic formula made especially for the duplication of surface roughness. Thread and contoured forms easily transferred; sampling die and mold cavities made easy.

- Quick Setting • Self Curing • Easy to Mix • Sets Up Hard Like Metal • Hard Sharp Edges • Higher Optical Properties • Multitudes of Other Uses. Excellent for use as Fixturing Compound.

All ranges of surface finish can be checked quickly and accurately.

Preface:

Facsimile is used all over the world by small as well as large firms. Almost all major airlines use it to check aircraft engines and parts - nuclear, aerospace and automotive hardware; Military inspection usage is extensive.

Shelf Life: 4 years is not uncommon

Laboratory Reports

Laboratory reports on FACSIMILE specimens show surface roughness measurements of 0.1 to 2,000 microinches are exact duplicates of the material tested, measurable on surface testing instruments of both electronic and optical types.

THE USE OF RAPID CURING "FACSIMILE measure image" permits a method of duplicating roughness of areas not normally accessible to gaging and inspection instruments.

Permanent records can be kept of surface roughness of materials on objects which have been delivered.

KIT #16000

Here is the complete introductory one pound kit that provides you with a new material that can pay for itself in one application! A new concept in plastic, it is easy to mix, self-curing, quick-setting, and extremely accurate and stable.

CONTENTS: #16000 1 Lb. Introductory Kit

- Complete Kit Contains:
- FACSIMILE POWDER, 1 lb. Troy
 - 1 - 120cc FACSIMILE liquid
 - 1 - 60cc Flexbar Release Agent
 - 1 - Powder scoop
 - 1 - Molding clay
 - 10 - Disposable cups (graduated)
 - 10 - Wooden spatulas
 - 1 - 1 oz. polypropylene measuring cup



CONTENTS: 3 LB. KIT #16003

- 3 pounds (Tr.) FACSIMILE powder
- 1 pint FACSIMILE liquid
- 1 - 60cc Flexbar release agent
- 1- powder scoop
- 1- molding clay
- 20 - disposable cups (graduated)
- 20 - wooden spatula
- 1 - 6 oz. polypropylene measuring cup
- Applications manual

CONTENTS: 25 LB. KIT #16025

- 25 pounds (Tr.) FACSIMILE powder
- 1 gallon FACSIMILE liquid
- 1 - 60cc Flexbar release agent
- 1- powder scoop
- 1- large bar molding clay
- 100 - disposable cups (graduated)
- 100 - wooden spatula
- 10 - 6 oz. polypropylene measuring cup
- Applications manual

QUICK-SETTING COMPOUND KITS and ACCESSORIES

COMPLETE KITS

- 16000** 1 lb. Kit FACSIMILE
- 16003** 3 lb. Kit FACSIMILE
- 16025** 25 lb. Kit FACSIMILE

#16000, one pound kit yields 20 cubic inches of solid (cured) material.
#16003, three pound kit yields 62 cubic inches of solid (cured) material.
#16025, twenty five pound kit yields 518 cubic inches of solid (cured) material.

Order No.

- | | | | |
|--------------|--------------------------------|--------------|--------------------------------------|
| 16200 | 60cc Release Agent, soap based | 16208 | Gallon Can Facsimile Liquid |
| 16201 | Pint Release Agent, soap based | 16209 | 100 ea. 3 oz. Paper Cups Graduated |
| 16202 | 1 lb. Jar Facsimile Powder | 16210 | 100 ea. 1 oz. Plastic Cups Graduated |
| 16203 | 3 lb. Jar Facsimile Powder | 16211 | 25 ea. 6 oz. Plastic Cups Graduated |
| 16204 | 25 lb. Drum Facsimile Powder | 16212 | 100 ea. Sticks, Mixing, Narrow |
| 16205 | 120cc Bottle Facsimile Liquid | 16213 | 1 lb. Bar Molding Clay |
| 16206 | Pint Can Facsimile Liquid | 16214 | 100 ea. Sticks, Mixing, Wide |
| 16207 | Quart Can Facsimile Liquid | 16914 | 60cc Release Agent, oil based |
| | | 16915 | Pint Release Agent, oil based |

**For Air Shipments, EXTRA CHARGE for D.O.T. Approved.
Containers and Overpacking for Facsimile Liquid only.**

**Visit our website to download the Safety Data Sheets.
www.flexbar.com**

AN INTRODUCTION TO “FACSIMILE”

If you are already using “Facsimile”, and if you are already expert in its use, you may still want to read what follows here, because we have added several hints & techniques not contained in previous publications.

Using Facsimile requires the technicians to make their own mixture, so that while the process is technique dependent, it is nevertheless quite easy to handle. Facsimile clones into “Hard Copies” of existing parts, molds, tooling dies, hubs, thread forms and the like. It excels in faithful and exacting replication of surface finish/surface texture, as well as radii and angles. It can clone these in areas of the test piece not readily accessible to conventional probes and measuring devices.

In response to numerous requests for a sister product to Facsimile-one which would set up as quickly as Facsimile, but in the form of pliable rubber, we set out to innovate such a system. After careful experimentation, we developed a metrology-grade compound which we named “Reprorubber”. It has been used widely, with great success, and it is supplied in two viscosities:

1. REPRORUBBER THIN POUR - a free flowing, low viscosity system, which sets up like medium durometer rubber.

2. REPRORUBBER PUTTY - sets up hard like the eraser of a pencil.

Differing from the mundane RTV preparations and a variety of dental materials, nothing evaporates during the cure cycle or thereafter, which results in a deadly accurate transfer-proofing compound.

Following Facsimile and Fine Proofing Alloy, Reprorubber offers the user an alternative problem-solving material. For further details on Reprorubber, visit www.reprorubber.com.

FACSIMILE: Instructions for Use:

Preparing the original prior to applying the Facsimile mixture (obtaining separation).

Cover the surface by applying a generous amount of Flexbar Release Agent as supplied with each kit. Use a camel-hair brush, swab, or lint-free cloth. Dam off the original with molding clay, making areas not wanted and undercuts tool. Use release agent on corners, and around bends just in case the applied mixture runs over the edge.

RELEASE AGENT:

When the substrate (specimen) is metal:

- If the metal is “Bone Dry” the Facsimile mixture will cure and bond onto the metal. This may be advantageous in certain applications, such as fixturing or tooling usage.
- If the metal has Release Agent covering the entire area, the cured Facsimile will release from the original.

OTHER RELEASE AGENTS:

Since the chemical composition and metallurgical structure of metals varies a good deal, users of Facsimile often use other substances which work best on the particular substrate. E.G. Petroleum Jelly (Vaseline), - light grease - 3 i 1 oil, vegetable oil - soap solution - transmission fluid - lard - spray-on furniture polish (Pledge) - Polymer car finish (Armor All) etc.

PUTTING IT IN THE FREEZER: If by accident the replica does not separate from the mold, put it in the freezer and separation will occur.

SPECIAL RELEASE AGENT

For difficult materials, try new Epoxy Parfilm, Flexbar No. 16136. This is a high-tech Release Agent which works even better than silicones. Things to avoid: Oils with solvents in them, or commercial release coating which would mar the surface finish of the cured replica, (i.e) if identical surface replication is vital to your testing. For encapsulation, use rings or boxes (slice off section from metal) or even better, hollow plastic tubes, or, you can dam off the periphery with clay or oiled metal plates held together with magnets, or framed using “Crazy Glue”.

SEPARATION FROM PLASTIC PARTS:

The Facsimile mixture when placed into or onto a plastic substrate will:

(Type A) Separate itself easily from plastic even without Release Agent.

(Type B) Bond itself to the plastic.

Non-stick plastics (Type A) include: Polyethylene, Nylon, Teflon, Delrin and Rubber. If you are not certain, use a scrap piece and experiment using only a small glob of Facsimile mixture.

Plastics which will stick (Type B) include: Acrylics, Acetates, Vinyls, PVCS, Styrenes, Plexiglass, ABS, Fiberglass, CFC's and some others. However, there is a way out! To easily separate replicas from plastic parts which normally stick, use Epoxy Parfilm, Flexbar Order No. 16136 (18 ounce spray can) (See page 15).

MIXING FACSIMILE:

The viscosity of Facsimile is adjustable; the more liquid used, the thinner the mixture and vice versa. There is not a fixed ratio of powder to liquid and this depends a good deal upon the application. However, the more powder that can be tolerated in the mixture, the more accurate is the dimensional transfer. If you are a first-time user, it is advisable to experiment with a few different ratios.

MAKING THE MIXTURE:

1. Scoop powder into one graduated cup.
2. Pour liquid into a second cup.
3. Pour the powder into the liquid.
4. Use the wooden spatula and slowly stir for about 60 seconds. If it looks like the mixture is too thick, you still have time to add a bit more of liquid and re-stir. If too thin, you can add more powder and re-stir.
5. (Optional) Turning the cup 60° and rotating the cup in the hands for 10 seconds or so will remove air which may be trapped in the mixture. This will tend to eliminate "Voids" within the cured replica.
6. Examples of Ratios: 3 to 1

This means, for example that you put 30cc of powder in cup #1 and 10cc of liquid in cup #2. The cups supplied in each Facsimile Kit are "Graduated". Cups can be ordered separately (See page 3).

POWDER	+	LIQUID	=	RESULTING VISCOSITY
3		1	=	Thin
4		1	=	Medium
5		1	=	Thick

7. CURE TIME: AT 68°-70° (Room Temperature), in most environments, Facsimile will cure in about 10 minutes. After 6 minutes, while the replica may appear "Hard", upon touching it you will observe that is still quite warm and thereafter it cools down very rapidly. Removal when still warm will distort the geometry so wait until it is cold.

8. Increasing work time and cure time: Many users of Facsimile cannot tolerate the short cure time. In certain situations - this is easily solved as follows: Keep the Facsimile liquid in cold place, such as a refrigerator. Curetime will be increased to 30 to 40 minutes which of course also provides more "Work Time".

DAMMING OFF FACSIMILE: Various objects can be useful. Keep these on hand or collect them in a box.

: Modeling Clay: sheets of non-stick plastic: Plaster of Paris.

: Plastic Caps: Rubber Plugs: RTV rubber or even better Flexbar REPRORUBBER.

The REPRORUBBER "DAM" will exactly fit the configuration of the area being dammed off and it will constantly keep its shape and tolerance so that the same dam can be used over and over again to make additional replicas.

9. Applying Facsimile in *Putty Form*: Use A High Powder to liquid ratio. Wait until it gets pasty while covering your hands with oil or petroleum jelly. This is so that the Facsimile putty will not stick to your hands. Pry the putty out with the wooden stick and scoop it into your oiled hands: roll it into a ball and then push it into the test piece. Press several times for it to take shape. Wait for "Full Cure" and then remove it. AVOID TOUCHING FACSIMILE MIXTURE, as follows: spread or put putty on thin plastic sheeting such as a "Baggie", poly bag or piece of wax paper then press it into or onto the test piece. Important: Do not remove plastic sheet until after the Facsimile mixture has cured fully.

10. DISSOLVING CURED FACSIMILE: Soak in Acetone or Ethylene Dichloride

11. USING A SYRINGE: Many types of plastic syringes are readily available including Flexbar Monoject Syringes (visit www.reprorubber.com). The Facsimile mixture can be poured into a Polyethylene Syringe body; then insert the plunger and dispense under very controlled conditions. The cured Facsimile residue will push out easily to that the same syringe can be used over and over again.

12. HINTS FOR REMOVAL: a. Many shapes are easy to remove. Use a thin knife edge to pluck up the edge of the replica and it will pop off. Often times, rapping the set up with a wooden mallet will dislodge the specimen without harming either the original test piece or the duplicate, for more difficult configurations, sink a handle into the potted area. E.G., use a hex bolt or headed machine screw (head in always).

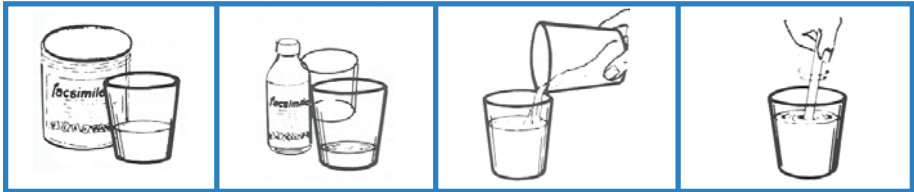
b. If the original has one or more undercuts, so that there is no draft, then fill into the undercut with clay or similar material.

DIRECTIONS FOR MIXING AND POURING

ACCURATE REPRODUCTION IN MINUTES

NOTE: Temperature and humidity conditions can affect mixing ratio but you can easily achieve the best ratio with a couple of trial mixes. Record the best.

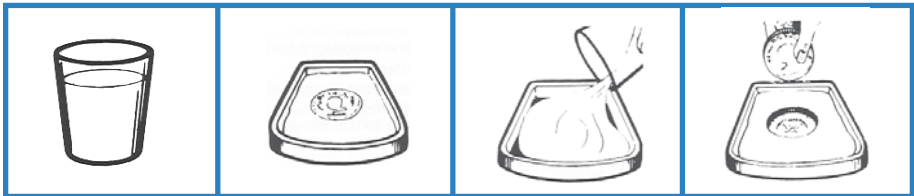
EXAMPLE GIVEN BELOW IS ONLY FOR “THIN VISCOSITY”.
SEE PAGE 5 FOR OTHER MIX RATIOS.



Method No. 1: FOR USE IN LIQUID STATE (where area is easily dammed off), 3:1 Ratio

1. Pour Powder into cup (30cc).
2. Pour liquid into second cup (10cc).
3. Pour Powder into liquid.
4. Spatulate slowly for 60 seconds.

This ratio will result in a thin viscosity.



5. Wait 30 seconds for bubbles to settle.
6. Prepare area for release by using a release agent.
7. Pour over object or into cavity and let it set for 6-8 minutes at room temperature (more in cold areas).
8. Remove specimen (press out or insert knife edge to loosen and pry out).

Cured Facsimile has a density of 1.1 so that small amount goes a long way.

Our mixing cups are polyethylene or polypropylene so that residue will peel out easily; thus mixing cups are reusable. Disposable cups are also included.

#16000, one pound kit yields 20.9 cubic inches of solid (cured) material.

#16003, three pound kit yields 62 cubic inches of solid (cured) material.

#16025, twenty five pound kit yields 518 cubic inches of solid (cured) material.



QUICK-SETTING COMPOUND

Laboratory Reports

Laboratory reports on FACSIMILE specimens show surface roughness measurements of 0.1 to 2,000 microinches are exact duplicates of the material tested, measurable on surface testing instruments of both electronic and optical types.

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Technical Data

A test submitted by E.I. DuPont DeNemour & Company to an independent test lab showed the following properties of “Facsimile”.

	1	2	3
Diameter	0.805	0.799	0.805
Length	0.699	0.0699	0.700
Area	0.509	0.501	0.509
Breaking Load (lbs.)	7,780*	7,060*	7,200*
Compressive strength	15,280	14,090	14,140
	2	3	4
Width	0.188	0.189	0.192
Thickness	0.065	0.064	0.072
Area	0.0122	0.0121	0.0138
Ultimate Load (lbs.)	42.2	53	43.8
Ultimate Tensile (psi)	3,460	4,380	3,170
*1st deformation - sample did not break			

END OF REPORT

TEMPERATURE RESISTANCE:

Under heat, Facsimile does break down which starts around 350°F. Users have bonded metals and springs using heat of up to 350° C. Thermal insulation can be increased by mixing in a normal amount of special powder e.g., rock wool.

SHRINK FACTORS:

A. Non confined - as around an air-foil section - excellent.

B. Confined casting of Facsimile. This will result in a very small amount of shrinkage. Therefore, dam off part of internal cavity with clay or pliable material. To improve close tolerance dimensional transfers:

1. Load a lot of powder into the mixture and push material into ring or form.
2. Cure (after pouring) in a pressure vessel at 15 p.s.i. A pressure cooker with an air valve will do.
3. Take a partial impression e.g. 60% of a hole diameter.

P.S. FACSIMILE, when cured, is sufficiently hard for use of a stylus following the edge of FACSIMILE template.

HARDNESS: ROCKWELL - M 90 (Comparable to an ABS Plastic)
THIS IS A STANDARD FOR PLASTICS ONLY.



USE #1 Case History

(see below for graphs)

INSTRUMENTATION - Zeiss Interference Surface Tester

TYPE OF TEST I. Flatness Check

- original being reproduced was optically flat to 3 millionths of an inch.
- curing period - approximately 30 minutes.

Results: immediate - FACSIMILE reproduction measured 3 millionths of an inch.
3 days later - FACSIMILE reproduction measured 10 millionths of an inch.
6 days later - FACSIMILE reproduction measured 10 millionths of an inch.

INSTRUMENTATION - Zeiss Light Section Microscope

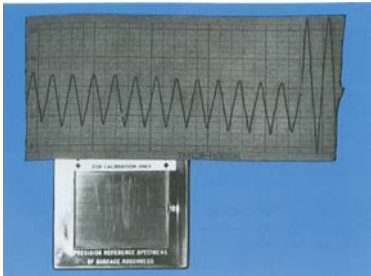
TYPE OF TEST II. Surface Roughness Test

- original being reproduced was a flaw on a 6" diameter roll which measured 160 microinches.
- curing period - due to late-in-day application, cast was left overnight.

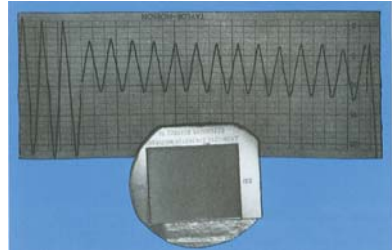
Results: FACSIMILE reproduction measured 160 microinches.

QUESTION: What are the optimum results which can be anticipated when using standard surface roughness measuring instruments on FACSIMILE reproductions?

ANSWER: A SURFACE FINISH OF 0.1 MICROINCHES can be checked! Higher values will also replicate accurately.



I. Talysurf recording of caliblock roughness master.



II. Talysurf recording of FACSIMILE duplicate.

When you check surface roughness on original using stylus-type equipment, some surface damage will result from stylus and/or skid pressure but NEVER when you use FACSIMILE replica, which is identical to original.

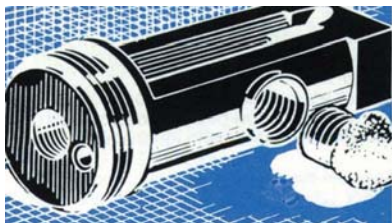


FLEXBAR

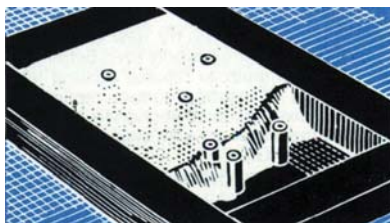
facsimile[®]
MEASURE IMAGE

made in U.S.A.

MORE USES AND APPLICATIONS:

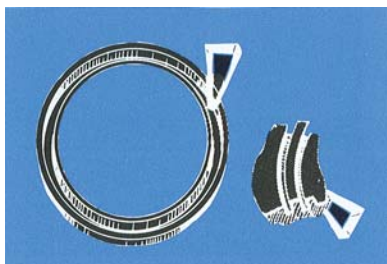


USE #2: To create a master or checking gage, just pour in Facsimile and wait 6 to 8 minutes. Parts later can be conventionally ground, machined, etc., if desired. Drawing above shows creation of a thread gage.



USE #3: Shown above is a quick and inexpensive method of creating a drill fixture. Just pour Facsimile around drill bushings and wait 6 to 8 minutes. Casting must be a thick section 3/8" or more. **USE MAGNETS TO HOLD PLATES.**

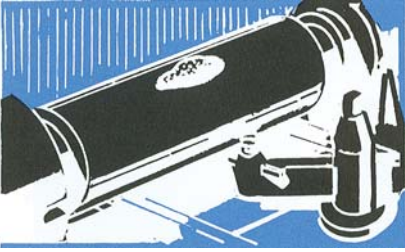
USE #4 (shown right): HIGHLY ACCURATE AND RELIABLE CASTED REPLICAS OF INTERNAL THREAD FORMS ARE NOT ONLY POSSIBLE BUT THEY ARE BEING PERFORMED DAILY BY FACSIMILE USERS THE WORLD OVER. Intricate shapes such as Buttruss threads and Whitworth can be taken. In use: it is suggested that only about 1/2 of the thread be casted at a time and use a wooden or metal handle for easy withdrawal of the impression. For small threads use thin sticks (round or flat).



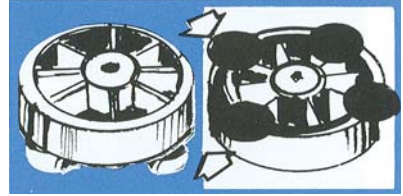
USE #5: GROOVE GAGES: e.g. such as used by "CAN MANUFACTURERS." Cast Facsimile in groove using "handle method" (first spraying release into areas of impression). After cure cycle, casting is simply moved around 360° to check geometry of the groove.



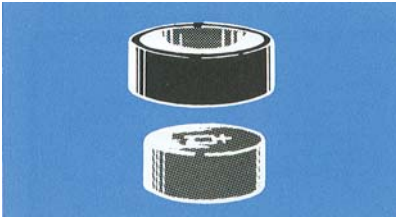
USE #6: FOR TESTING MOULDS, DIES, ETC. For small run castings of parts for prototype work. Ready to use in 8-10 minutes after pouring. Makes permanent records of surface finish, surface texture; geometry and dimension of form.



USE #7: Without removing work from the machine set-up you can create "Facsimile" test sample which can be carried away for testing. Duplicates from 0.1 to 2,000 Microinches perfectly.



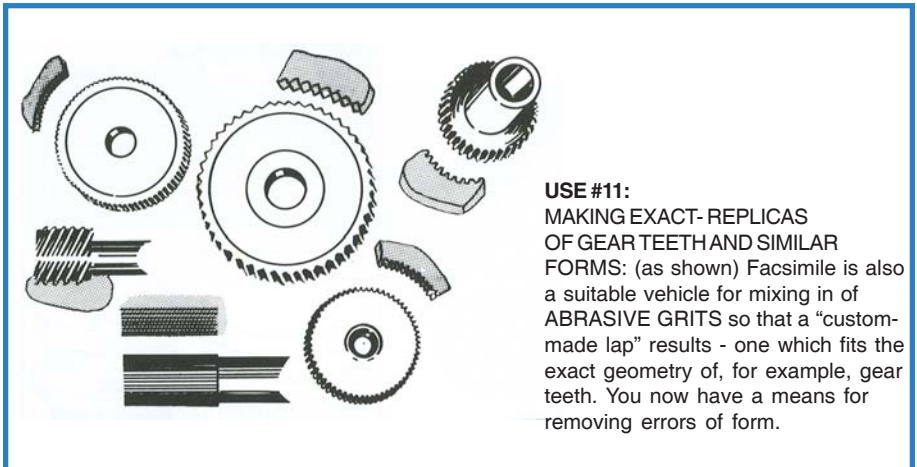
USE #8: Zero leveling pods made of Facsimile are placed under huge diameter disc shaped blanks and leveled; then discs are machined, at various stations, into steam turbine diaphragms resulting in zero machining defects. Courtesy of General Electric, Ladson, So. Carolina.



USE #9: MOUNTING METALLOGRAPHIC SPECIMENS: (for examination by microscope): Use rings as retainers and put on flat glass plate. You can now polish, lap or grind specimen with excellent results.

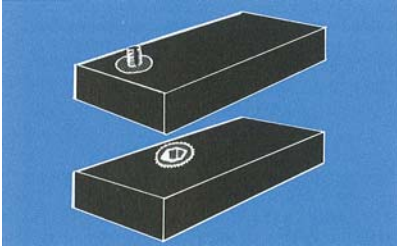


USE #10: Fills voids in castings as well as in epoxy and phenolic moulds with speed and accuracy. Areas filled can then be sanded and painted.

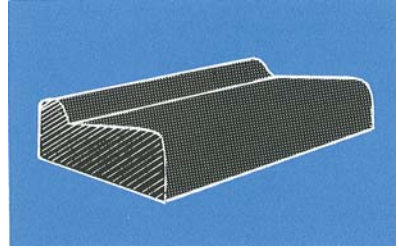


USE #11: MAKING EXACT- REPLICAS OF GEAR TEETH AND SIMILAR FORMS: (as shown) Facsimile is also a suitable vehicle for mixing in of ABRASIVE GRITS so that a "custom-made lap" results - one which fits the exact geometry of, for example, gear teeth. You now have a means for removing errors of form.

facsimile[®] USES & APPLICATIONS (continued)

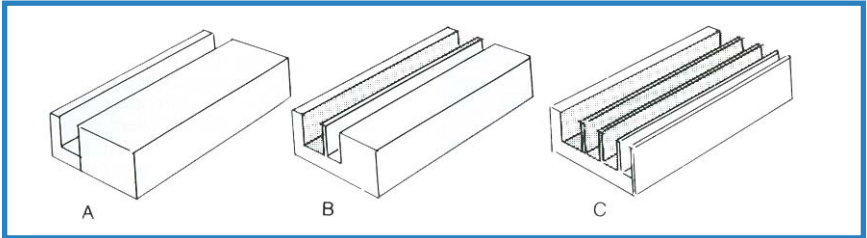


USE #12: Potting of threaded studs and groove pins in place provides high tensile strength. Use as a filler to seal set screws and socket head cap screws, etc.

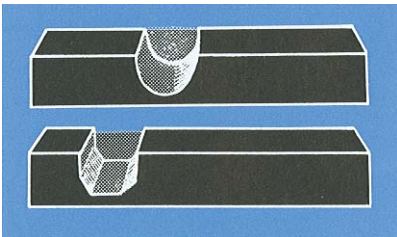


USE #13: With Facsimile (which has a high compressive strength) you can rapidly make jigs and fixtures for bending thin to medium gauges of sheet metal.

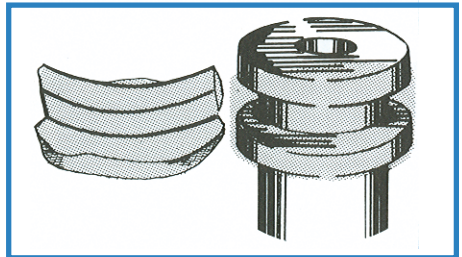
Note: FACSIMILE replicas can be checked and measured on optical comparators (shadow graphs).



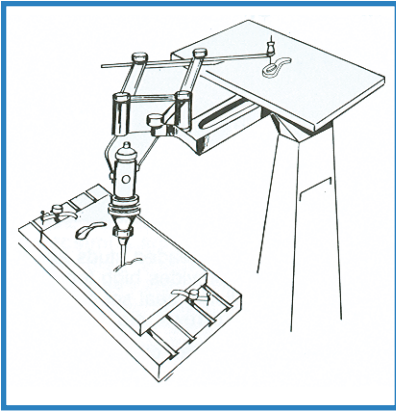
USE #14: BACK-UP MATERIAL as in GRINDING of special shapes and forms where thin walls would, otherwise, collapse. In figure above, the first groove of the honeycomb grinds and fill in as you go along. Items with walls to .0001" are practical and real when using Facsimile as the "backup." An ACETONE SOAK removes the material quickly.



USE #15: Used for checking radii and angular internal and external recesses, often in difficult to measure areas.

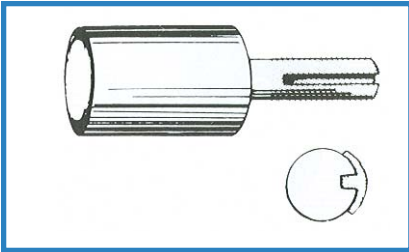


USE #16: Taking impressions of groove roots. External is shown. Internal "takes" are also possible in otherwise inaccessible locations.

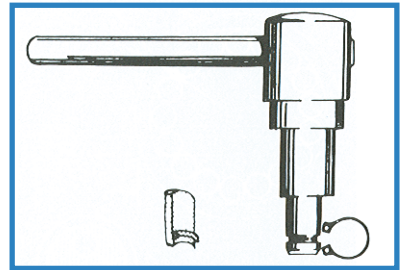


USE #17: Makes excellent patterns and templates for panto-milling, for pro-filling applications and for Kellering. Make patterns for Bridgeport hydratel or tracer lathes. Also, CNC milling.

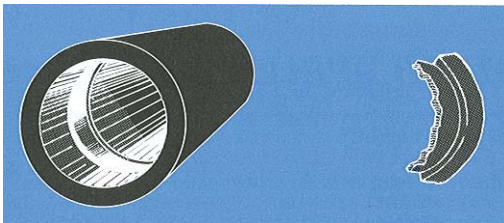
TRANSFERRING GROOVES



USE #18: Transfer dimensions from one location to another, e.g. A foreign-made motor shaft had a key missing. Motor was exposed by crane lift, then the Facsimile impression was made; it was then taken to the machine shop for quick and accurate fabrication.



USE # 19: Excellent for checking and verifying locations of “retaining-type rings”; both internal and external types.

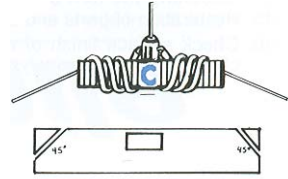


USE #20: Exact Replica of Internal Groove. Be careful to first spray release agent or light oil into entire area otherwise the Facsimile adheres to the metal and becomes difficult to remove.

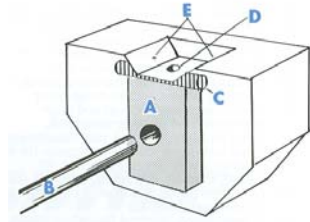
USE #21: - SPECIAL FIXTURING & DRILL JIGS:

Time saving factor is mainly due to

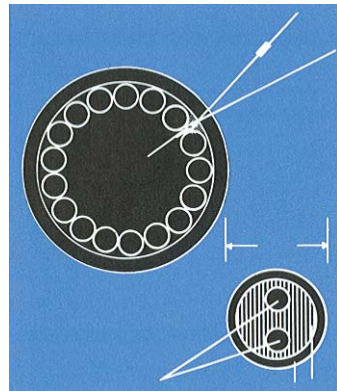
1. Casting technique with 6-8 minutes cure time is faster than machining. Retaining forms are easily put together with scrap material.
2. Facsimile when hardened is fast to machine.
3. Leave void areas for 2nd and 3rd pours of Facsimile. It sticks to itself and becomes almost homogeneous.



Application Shown: The wire-wrapped unit (shown) needs three holes, one at 90° and two at 45°. Fixture is created with holes E and D set in line on optical comparator or other means. Part C is oriented while slot A is cast (with release agent on it) so that it can then be pushed out through hole D. Machine away clearance room for rod B which then passes through slug A's hole. Form has 45° flats on bottom so that when held in that angle holes E can be drilled accurately.



USE #22: In use, the technician was able to “pot” thermocouples within the ball races of special motors. Therefore, Facsimile is useful in similar applications - wherever an instrument SENSOR has to be positioned positively in a specified location.



USE #23: Optical projections of forms made with “Facsimile” are duplicates within millionths!

OTHER APPLICATIONS (in brief):

24. For "Copy-Milling Machine". Master male form, cast using Facsimile serves as trace master to sink female die cavities. Courtesy of Alan Seaberg, Pres., Ram-Sag Machinery Sales Corp., West Babylon, N.Y.
25. Testing surfaces for roughness (in bottom of hole).
26. Repair holes in sand castings.
27. Temporary valve seals and valve packings.
28. Temporary and permanent repairs - from door handles to lead screw housings for machine tools (use release agent on lead screw only so that table can be traversed).
29. Make quick and secure handles for tools and tooling.
30. Make replicas of master gages (keep original and supply the replica with blueprint to vendor.)
31. Checking undercuts, O-Ring grooves and blind holes.
32. Making accurate models and repairing models.
33. Masking off areas for plating, etching, painting, Parkerizing and Chemical milling.
34. Thread-bonding adhesive. Cementing metals.
35. Checking the outside of airfoil sections.
36. Encapsulation of electrical components (potting).
37. Checking texture and markings on carbon electrodes, printing matrixes, etc.
38. Removing oxides and rust and brightening copper and brass. (Apply with release agent and then remove; area is left bright).
39. Using an appropriate rod, cast Facsimile inside cylinder wall or in proper I.D. glass tubes and make your own air piston for temporary or permanent use.
40. Criminal investigation techniques.
41. Pattern Making - Bending Jigs.
42. To hold a 6 pound fixture with 3 pods to large printing rolls for residual strain testing. (Continental Can Co.)
43. In determining "Fretting Depth" on Blade Dovetails for the CF-6-50 jet engine.
44. Checking the new JT-8B Engine.
45. Restoration of parts and antiques.
46. Check surface finish of rubber. Replica results in hard surface facsimile; then check with surface analyzer equipment. Also for soft aluminum.



FACSIMILE APPLICATION #47

This is a custom-made part for ejection of parts on a machine. (It can also be made for feeding parts). An aluminum core (for inside) was machined. Two angle irons were put together to form the rectangular outer section. Core was held in place and FACSIMILE poured into resulting cavity. Tube positioned in place was automatically bonded in by single pouring of FACSIMILE. Short run of 50 parts was made:

Courtesy of Stewart Stamping Company
Yonkers, NY

USE #48: Highly Accurate and reliable casted replicas of internal thread forms are not only possible but they are being performed daily by Facsimile users the world over.



**MANY E.D.M. SHOPS USE
FACSIMILE FOR MAKING DUPLICATE
ELECTRODES, ETC.**

**NOTE:
FACSIMILE CAN BE PLATED!
SEE YOUR LOCAL PLATER.**

NOTE:

FACSIMILE...is 100% approved for ANTICONTAMINATION and for all ATOMIC and NUCLEAR APPLICATIONS by virtue of containing within minimal traces of : All Halogens - Mercury - Sulphur - Lead Copper/ Brass- Phosphorus - Zinc - Arsenic Antimony - Aluminum - Cadmium - Tin - Bismuth or any compounds thereof.

Tests performed at New York Testing Laboratories, Inc. Westbury, NY, Certificates available: New York Testing Laboratory.

SAFETY: "Material Safety Data Sheets" will also be provided, FREE, upon request for plants who require it on file.

SUPER RELEASE AGENT

EPOXY PARFILM ULTRA

**A Highly Effective Release Agent
for users of Facsimile "measure image".**

NON-CFC, NON-VOC Formula.

Epoxy ParFilm is the culmination of a search for a suitable release agent for epoxies.

The highly effective, very thin film obtainable from Epoxy ParFilm Release is non-melting and will not carbonize. This makes it suitable for use with exothermic cures, such as Facsimile "measure-image" replication compound.

Epoxy ParFilm offers better release than polyvinyl alcohol and wax with a much thinner film application.

Epoxy ParFilm can be applied quickly with the easily operated directional valve which is standard.

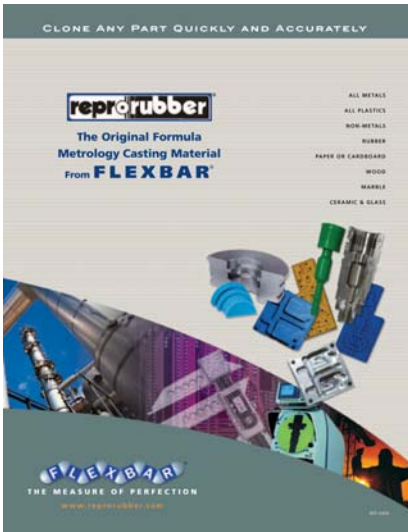
Epoxy ParFilm is non-combustible, non-toxic and non-allergenic. Contains NO CHLORINATED SOLVENTS.



**Order No. 16136, Epoxy
ParFilm, 18 ounce spray**

Also Available...

Reprorubber: Metrology Grade Replica Casting Material



Flexbar Reprorubber is the state-of-the-art metrology-grade, self-curing casting material. Now it's faster and easier to create virtually perfect replicas of both internal and external forms. Offered in three different viscosities, Reprorubber kits produce quick "zero shrinkage" reproductions in less than 10 minutes.

For technical and ordering information visit www.reprorubber.com. Contact Flexbar for a copy of the complete Reprorubber catalog, **REP-0409**.

Catalog 217 is now available. Featuring Quality Inspection Apparatus, Precision Measuring Instruments, Safety Equipment, Machine Tool Accessories including:

- Precision Gages
- Replica Casting Material
- Metrology Apparatus
- Optical and Video Inspection Systems
- Surface Finish Comparators
- Machine Tool and Shop Accessories

In addition to our full-line catalog, please visit the Flexbar website at www.flexbar.com to view the latest products, application information, on-line ordering and more.



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