TECHNICAL BULLETIN FOR
ACRYLIC TUB/SPA RESTORAL
I-19/8-03

The material in this kit will remove scratches and scuffs from acrylic tubs and spas. It will also restore gel-coated fiberglass surfaces. **Please Note: Blistered or deep holes may require filling.

The abrasives in this kit are **not** recommended or intended for use on eye glasses, optical instruments, or glass of any kind.

A. CONTENTS

1. (1) 3" x 4" Sheet Each Of Micro-Mesh Grades 2400, 3200, 4000, 6000
2. (1) 2" x 3" Foam Block
3. (1) 1 Oz. Bottle of Micro-Gloss®
4. (1) Cotton Flannel Cloth
5. (1) Instruction Booklet

You can use the abrasives either wet or dry. We suggest using them wet for the best surface finish.

B. DAMAGE REMOVAL

This part of the procedure will take approximately 70% of the work and is the most important. Work carefully, allowing plenty of time. You must remove all the damage to the bottom of the deepest scratch or nick. Deep damage should be removed with common wet/dry sandpaper (NOT INCLUDED IN THIS KIT).

VERY FINE SCRATCHES: Begin with either Micro-Mesh 4000 or 6000

HAIRLINE SCRATCHES/LIGHT SCUFFS: Begin with Micro-Mesh 2400 or 3200

FINE SCRATCHES: Begin with 400 grit wet/dry sandpaper

DEEP SCRATCHES (can be felt with fingernail): Begin with 220 grit wet/dry sandpaper

GROOVES: Begin with120 grit wet/dry sandpaper

Each grit of sandpaper should be used with a different crossing pattern (up and down with one grade, switching to back and forth with the next grade)

C. THE REMOVAL PROCEDURE

1. Spray the surface with water. Wrap the suggested abrasive around the foam block. Carefully work the damaged area using a straight-line motion. DO NOT USE A CIRCULAR MOTION. Keep firm pressure on the block. Keep sanding material and surface free of dust and contamination. Do not try to remove one scratch at a time. Spread the sanding pattern 4-6 inches with each step. Single point damage like cigarette burns, nicks or cuts must not be spot sanded. Distortion with result.
2. All damage must be removed in the first step. Evaluate your efforts after 2-3 minutes. If removal rate seems slow, move to next coarser grit. Evaluate this coarser grade and move coarser if necessary. Remember, the heavier the scratches you put into the surface, the more time and steps it will take to remove them.
3. When the damage is removed, move to the next finer grade until you have finished with the 400 grit wet/dry.

When damage is removed, your surface should have a uniform scratch pattern running in one direction. If you started with common wet/dry sandpaper, begin with the abrasives in your kit after the surface has been reduced to a 400 grit scratch pattern. If your damage was slight and you started the procedure with the kit abrasives, simply continue through the grades of Micro-Mesh.

THE RESTORAL PROCEDURE

1. Wrap the 2400 Micro-Mesh around the foam block. Carefully work the damaged area using a straight-line motion. DO NOT USE A CIRCULAR MOTION. Continue until all damage is removed. If you have previously removed severe damage (see Damage Removal) using sandpaper, continue working until that scratch pattern is removed.

2. Wrap 3200 around the foam block and continue, this time crossing (+) your 2400 scratch pattern. Make sure that you remove all of the 2400 scratch pattern before going on to Step 3.

3. Wrap 6000 around foam block, change your motion to cross the 4000 scratch pattern and continue as outlined in Step 1.

4. When you are finished with the last Micro-Mesh step, use Micro-Gloss as outlined below:

a. Use only 100% cotton flannel cloth when working with Micro-Gloss.
b. Work only in a straight line pattern, either vertical, or horizontal. Do not cross pattern. Do not use a circular motion.
c. Fold slightly damp flannel to form pad for your hand.
d. Put Micro-Gloss on the cloth and rub briskly and firmly over a 1 square foot area until it almost disappears. (Size of area will vary as Micro-Gloss builds up on cloth)
e. Continue the above procedure in 1 foot square areas over-lapping slightly.
f. Wipe entire surface with dry flannel to remove any Micro-Gloss residue. Surface of acrylic tub or spa should now shine and match the original surface.

MICRO-GLOSS® liquid abrasive is available in 8 oz and gallon containers. If you have any questions, please contact Micro-Surface Finishing Products, Inc. at 1-800-225-3006.

DO'S, DON'TS, CAUTIONS WHEN WORKING WITH MICRO-MESH®

The polishing of surfaces can be very exacting. Success or failure depends on the technician's knowledge of, and his ability to follow, an established sequence.

MICRO-MESH® Can be Used by Hand. Wrap the abrasive around a foam sanding block to give you even, uniform pressure during your sanding strokes.

MICRO-MESH® Can be Used With an Electric or Pneumatic Random Orbital Sander. Keep sanders to no more than 3500 rpms. Do not use with high speed die grinders. Ripples and swirls are typically caused by sanding with an uneven motion, tilting the sander, or working in one spot too long. For best results, sand smoothly with even, sweeping motions.

Keep Belt Machines at 5500 Rpms or Less. Adjust pressure and tension so that the contact point allows the abrasive to work without smearing. Typically durometers of 30-40 in rubber are best for a cushioned abrasive or cotton buffing wheels work well. Do not use lubricants containing solvents, alcohol or ammonia that could delaminate the MICRO-MESH®.

Pressure Should be Light. Remember the cushioned abrasive cuts with the abrasive crystal tips. The sharp cutting edges are floating on a resilient matrix. Extreme pressure pushes the tips back into the matrix rendering them ineffective and resulting in surface smearing, burning, and possible orange peel and distortion. If using with a belt machine, polish on the slack of the belt on using a soft contact wheel. If using a random orbital sander, polishing steps may require a soft back up pad between the MICRO-MESH® disc and the sander head.

KEEP EVERYTHING YOU USE CLEAN. This includes equipment, sandpapers, MICRO-MESH®, and all wiping materials. A minor scratch here or there is not a crisis situation, but picking up a piece of metal or other contaminate from the top of a work area can be a disaster. Watch where you set things down.

Acceptable Cleaning and Maintenance Materials:
100 % cotton flannel
Genuine chamois, not synthetic or imitation
Biodegradable liquid detergent
MICRO-MESH® Anti-Static Cream
MICRO-GLOSS® polish and cleaner

Unacceptable Cleaning and Maintenance Materials:
Paper towels or other paper products
Shop towels or synthetic fiber fabrics
Commercial window cleaners
Any product containing ammonia or solvents or alcohol

Clean the Work Surface between each step, especially in cracks and crevices. Flush surface several times with clean water to remove dust and dirt before touching it with anything. Clean abraded particles from the work piece by rinsing and then dry and inspect.

Inspect the Work Piece between steps with a bright light to ensure you are removing the previous scratch pattern before continuing on.

Keep the Abrasives Clean. Keeping them clean will improve performance and extend life.

To Avoid Scratching the Surface, do not wear watches, rings, or bracelets. Long fingernails should be covered with gloves.

For Superficial and Light Surface Damage, use MICRO-GLOSS® liquid abrasive following the directions on the label of the bottle.

For Deep Damage and Crazing, you will be required to remove the damage firstly with sandpaper and then restore the surface to its original state using MICRO-MESH®. After damage is removed by using sandpaper in a succession of steps from coarse to fine, ie: 120 grit, 220 grit, 400 grit wet/dry, then begin the MICRO-MESH® series with MICRO-MESH® 1500 and proceed through the series to 12000 or until the original surface is matched.

Use a Straight-line Crossing Pattern. Do not use a circular pattern except in the final hand buffing or anti-static operations. When using a random orbital sander, use sweeping motions from left to right for one grit, then change the pattern to an up and down motion on the next.

Using MICRO-MESH® with Water and a few drops of detergent will generally result in a less effort having to be used and a slightly better finish. Only use enough water to provide lubricity to the surface, but not so much that poor contact is made with the work piece.

DO NOT wear out one of the meshes by trying to make it do too much work on your first step. If your estimated damage is not readily removed, go immediately to the next coarser mesh.

Work an area slightly larger with each step to blend. Working one small area on a highly curved section could create flat spots or distortion.

DO NOT skip steps in either the sandpaper or the MICRO-MESH® series.

Work in a brightly lit area but not in the sun.

Removing the initial damage with the sandpaper series will take up 85% of the restoral time. The MICRO-MESH series and the buffing procedures will take as little as 15% of the time.