MICRO-MESH Procedures for Wood

MICRO-MESH is a unique cushioned abrasive that produces a very fine and uniform scratch pattern. The nine grades range from 1500 to 12000. The 1500 is similar in grit range to conventional 400 grit wet/dry sandpaper. The 12000 will leave a scratch pattern that cannot be detected by the human eye.

MICRO-MESH abrasives can polish to a high reflective state or leave a matte or satin finish depending upon where you stop while using the series.

1. **Bare Woods**

Before starting the MICRO-MESH series, coarse sanding should be done using up to 320 grit sandpaper. Shaping, sawing or turning of the work piece should be complete.

Begin with 1500 MICRO-MESH. Sand until all the sandpaper scratches are removed. Continue with the MICRO-MESH series (1800, 2400, 3200, 3600, 4000, 6000, 8000, 12000) You may stop at any point during this process when you have reached the finish that you desire.

Thinned lemon oil or Danish oil can be applied as a finish on bare wood.

2. **Wood Finishes** (polyurethane, polyester, epoxy, lacquer, etc.)

**Follow the manufacturer's recommended cure times prior to recoating or applying the finish coat.* When you are applying multiple coats, sand from 1500 MICRO-MESH to 3200 or 3600 between coats to remove any orange-peel or dirt. *Note, for soft or thin finishes, only sand with 3200 to 3600 between coats.

After the final coat has fully cured, polish the surface beginning with 2400 MICRO-MESH and continue through the series (3200-12000) until the desired gloss is achieved.

Satin finishes are achieved by sanding up to the 3600 grade. The satin finish gets progressively higher in gloss through the 6000 step. High gloss finishes will appear by the 6000 through 12000 step. The wood, the finish used and personal preference determine where to stop. MICRO-GLOSS liquid abrasive can be hand rubbed onto the finish following the 12000 MICRO-MESH step for an "ultra" high gloss finish.

MICRO-MESH® replaces steel wool and both pumice and rotten stone for final finishing.

3. **Repair of Wood Finishes**

Burn ins – Sand to remove discoloration. Cover with three coats of lacquer. Wet sand with 1500, then apply one more coat of lacquer. Polish with MICROMESH® series beginning with 2400 MICRO-MESH and continue through the series stopping after each grade to see if you've reached the finish you are trying to match.

Guidelines for matching a satin finish - Begin with 1500 MICRO-MESH, followed by 1800, 2400 and 3600, or until you've reached the finish you're trying to match.

To match a high gloss finish – Begin with 1500 MICRO-MESH and continue up through the series to 12000 or until you have reached the desired finish. For gloss beyond the 12000, buff with MICRO-GLOSS liquid abrasive.

4. **Hints**

MICRO-MESH can be used wet or dry. When using MICRO-MESH dry, it can be "unloaded" by rapping against the palm of your hand.

MICRO-MESH can also be cleaned by using a stiff, short, bristled brush.

It may not be necessary to go through every grade of MICRO-MESH to reach the desired finish. You can experiment skipping every other step.

DO'S, DON'TS, CAUTIONS WHEN WORKING WITH MICROMESH

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, 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 fibre 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.

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, i.e.: 120 grit, 220 grit, 400 grit wet/dry, then begin the MICROMESH 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 antistatic 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 MICROMESH series and the buffing procedures will take as little as 15% of the time.