

Kevin Brown's method for applying Meguiar's M105 Ultra Cut Compound or M86 So1o Cut & Polish Cream with a random-orbital:

I've found that **M105 Ultra Cut Compound** and **M86 So1o Cut & Polish Cream** deliver best results when used in a similar manner. Not surprising, given that both liquids utilize non-diminishing abrasive technology. The directions below apply to both liquids, but M105 is referred to in the directions.

- **M86 is NOT recommended** for use with a random-orbital.
- **M105 original formula is NOT recommended** for use with a random-orbital.
- **M105 updated formula IS recommended** for use with a random-orbital.

Results may vary, so it is best to practice this method on a test panel prior to using it on a vehicle. All recommendations are in reference to applying these liquids via **RANDOM-ORBITAL** machine. This method also works well with a forced-rotation/fixed-orbit machine (such as the popular Flex 3401VRG).

A different method should be used if polishing paint with a rotary machine.

Generally:

- **M105** outperforms M86 in terms of speed for removing defects.
- **M105** is capable of leaving a near perfect finish, but not on all types of paint.
- **Original formula M105** can be difficult to remove, especially on very dry paint (old, heavily oxidized, or improperly mixed prior to spraying).
- **M86** is bulletproof- it works well on virtually ANY type of paint.
- **M86** can occasionally outperform M105 in terms of defect removal and final finish.
- **M86** remains workable for a long period of time.

M105 Ultra Cut Compound used with a **RANDOM-ORBITAL** for **DEFECT** removal:

PRIME:

First, prime the pad with an ample amount of M105. Rub it in aggressively (by hand) to ensure complete pad coverage. If needed, continue to add more buffing liquid until it is visually obvious that the pad face is consistently primed, and feels moist to the touch. The goal is to fill the pores of the pad face with buffing liquid. Priming the pad in this manner dramatically increases the surface area of buffing liquid that will be in contact with the paint surface.

It is not necessary nor is it desirable to create an excess buildup of M105 on the pad. Too much buildup above the surface of the pad can decrease overall performance.

AVOID priming the pad with a fine mist of water, Final Inspection, Last Touch, (or any other similar product). Why?

While wetting the pad or surface increases wetness, it does not necessarily add lubricity. In fact, if too much wetting agent is added, it can help to wash away (or displace) the buffing liquid's built-in lubricating ingredients.

Original formula M105 can get a bit dusty at times. This is both *unfortunate* AND *fortunate*. While the dusting is bothersome, it helps to remove the *contamination-laden and moisture-deprived* abrasive from a freshly polished surface. Since M105's abrasive is so fine, the addition of moisture AFTER it has been run through its working cycle helps gather all the abrasive dust remnants. The micro-sized abrasive particles remain very aggressive, and mechanically pack together. This grouping of particle matter creates larger particles, uneven in size & shape. This is NOT desirable, and leads to swirling.

Once clumping of the abrasive is encountered, the only way to COMPLETELY remove it is to rinse the pad in soapy water. The pad useless until it air dries, and you'll have to install a new one to complete your polishing work. I've used a combined process utilizing a thorough brush of the pad, then compressed air to remove remaining remnants, and microfiber toweling, without consistent satisfaction. If you want to achieve cutting-edge performance, don't cut corners... Use several pads to complete the session.

The main point is: The abrasive in M105 relies on its lubricants to deliver stellar finishing results. Further, M105 is at its peak performance when it's dispersed evenly across the pad. Use too much, or overdo a spritz of water (causing particle clumping), and you'll end up with fine swirling.

DEFECT REMOVAL:

After proper priming of the pad has been completed, apply a normal amount of M105 to the pad. A slower speed setting is desirable, as it helps to minimize fast evaporation of M105's lubrication. M105 will effectively cut defects at a very low speed setting, but typically yields great results on speed setting (4.0-5.0/G100). For HEAVY defect removal, you may have to use the maximum speed setting. Maximum speed really shortens the working-cycle of the liquid, and definitely abuses the polishing pads. If you must use high speed, implement pad swaps (of fresh and similar pads) during your polishing session.

Use normal to heavy CONSISTENT downward pressure, combined with very slow movement of the machine (as slow as one inch per second). Four to six slow passes should do the trick. Once the product has run its working cycle, wipe the surface clean. If the wipe off is difficult, mist the paint with water or a wipe-off spray, wait a few seconds, then wipe. If some residue remains, apply a bit of M105 to a dampened microfiber (rinse in water, then ring to remove excess), and apply to the surface.

AVOID using any other cleaners, polishes, or waxes to remove residue! Many products contain oils, solvents, etc., that may temporarily alter the surface hardness, slipperiness, etc., of the paint. Inspect, and if needed, reapply M105 and repeat the defect removal step. Wipe surface completely clean when all defects are removed.

Reapply as needed to completely remove remaining surface defects.

FINAL POLISHING:

Once you've satisfactorily removed surface defects, prepare for final polishing. Install a finishing pad (my preference is the Meguiar's W9006 SoftBuff® tan pad). Prime the pad (as previously recommended). DO NOT USE AN ABUNDANCE OF PRODUCT. For

polishing, a primed pad is essential to satisfactory results, while LESS working liquid (rather than MORE) delivers the best finish. Use a slow to medium speed setting (1.5-4.0/G100). You cannot overuse M105, as long as the pad stays moist (and it shouldn't scour).

Once your working cycle is done, evaluate the surface. If you feel the need to repeat the polishing process, use the following method (**random-orbital ONLY**): Set the pad into a microfiber towel, and turn on the machine. The microfiber will remove a majority of the residue, oils, and paint from the pad. USE CAUTION- Make sure the towel does not get caught in the drive mechanism!

Repeat the same process at least once more, but use a bit MORE pressure and even LESS product during your second application. Some paints yield even better results when the pad is simply cleaned, and NO ADDITIONAL PRODUCT is applied. There is a learning curve involved when attempting to final polish paint with this method. Take the time to give this step a chance. When done correctly, the final finish should be stunning.

Occasionally, the surface may need an application of polish to further refine the finish. **M82 Swirl-Free Polish** or **M205 Ultra Finishing Polish** have both performed well for me.

When using **Meguiar's M82 Swirl-Free Polish**:
This product features diminishing abrasives.

To apply: First, set the machine speed to a slow speed setting. *As a starting point, use a 3.0 setting for the G100/PC/UDM, or a 1.0 setting for the G110/220.* Next, install a fresh finishing pad (such as the Meguiar's W9006 6.5" SoftBuff™ Finishing Pad) and properly prime it. Allow the product to soak into the pad for approximately one minute. Apply an adequate amount of polishing liquid to the pad (a thin circle of liquid applied near the outer edge of the pad's face, or an X pattern crossing the face will suffice). Turn the machine on, and apply. *Adjust buffer speed and downward pressure to a level that allows the pad to rotate 1 to 3 times per second. Since this product features diminishing abrasives, use less downward pressure as the working cycle advances.*

When using **Meguiar's M205 Ultra Finishing Polish**:
This product features non-diminishing abrasives.

To apply: First, set the machine speed to a medium speed setting. *As a starting point, use a 4.0 setting for the G100/PC/UDM or a 2.0 setting for the G110/G220.* Next, install a fresh finishing pad (such as the Meguiar's W9006 6.5" SoftBuff™ Finishing Pad) and properly prime it. Allow the product to soak into the pad for approximately one to two minutes. Then, apply small drops of polish directly to the pad and massage in thoroughly (typically, 5 to 7 half-inch drops will suffice). Turn the machine on, and apply. *Adjust buffer speed and downward pressure to a level that allows the pad to rotate 3 to 6 times per second. Since this product features non-diminishing abrasives, consistent downward pressure should be used throughout the application cycle.*

Kevin Brown