



Saving Time and Space By Eliminating Wash/Etch Wax Pattern Process

Today, attempting to balance budgets and manufacture quality parts at the same time is a tall task. However, some investment casting companies are realizing they can address both, at least in their wax rooms. Working with our lab here at Stoner, we've developed and improved a wax pattern release that doesn't require a solvent wash or etch cleaning step. This product was created in the late 1990's due to customer interest in a product that didn't require a wash/etch process. Since then, Stoner has made improvements that have resulted in quite a few satisfied customers. Most of them were curious and interested enough to get their manufacturing and engineering people on the same page about what was involved with the implementation process. For most it's been very easy and seamless. Generally, customers simply clean tooling cavities using either acetone or their own solvent cleaner. Then, a simple spray of their tools with the same light, even film of E333 release. No need to apply any more than normal. After parts are released from the tool, they can immediately go to the slurry mix. Some customers do wash with water, but most find it's not necessary. The finished part is left with a matte finish and without any of the flow lines associated with over-application of silicone release. There should be no

difference in finish quality.

A question we often hear is: Does silicone simply release parts better – isn't it slippier? Yes, it certainly has more slip associated with it. And, we have heard from some customers that on some large surfaces they require a silicone release, in which case they use it for those parts without any issues. Others have simply been able to engineer the no wash release into their manufacturing process, working closely together as a team. Realizing all plants are different, that's something each individual plant would have to dial into their process.

All customers had been using our excellent silicone wax pattern release products for years, without issue, but had heard from others about how they'd been able to save time and money using our E333.

Some customers are also seeing environmental benefits with regard to eliminating some of their waste water issues associated with foaming. This results in not having to handle and monitor and be responsible for that very regulated area of their business.

Others have simply been able to free up large amounts of space that had been used for manual or automatic wash/etch processes. Those areas can now be used for additional manufacturing, finishing or storage.

A long-time customer has reported

Above photo left: Stoner's E333 No Wash Wax Pattern Release and their E412 Silicone Wax Pattern Release.

Above photo right: Note the matte surface finish using the non-silicone E333, enabling the pattern to go straight to slurry bath.

that they now save 1.5 to 2 minutes per part when they eliminated their wash process. This resulted in a yearly savings of 1,625 hours a year.

E333 is available in handy, portable aerosol cans as well as disposable and refillable (in the continental United States) cylinders which hold approximately 48 aerosol cans' worth of material. The spray assembly for these has been developed to replicate the spray pattern with aerosol spray heads. Hoses, handles and spare parts are included and are required for initial use and are replaced as needed. Some of the parts are free for as long as the cylinders are being purchased. Products are manufactured at the plant in Lancaster County, PA and are shipped with free delivery in the continental United States.