

Guntap™ Brass Shine for Ultrasonic Cleaning of Cartridge Cases

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Purchase Brass Shine at the guntap™ website: www.guntap.com

PounderLabs™ has completed a preliminary evaluation of guntap™ Brass Shine detergent for ultrasonic cleaning of brass cartridge cases. We report our observations here, but can provide this summary conclusion: Excellent Performance.

Background

Here in PounderLabs™ we de-prime and ultrasonically clean all cartridge cases, pistol and rifle. Of particular interest is thoroughly cleaning rifle cases for precision reloading. We need ultra-cleaned brass cases for several reasons:

1. Baseline case preparation techniques where we are returning cases to “as new” condition,
2. We use analytical methods to statistically analyze case weights and correlate this with case volumes to get accurate load densities,
3. Our small flame annealing technique requires monitoring color change of the highly cleaned brass during heating.

The traditional liquid-based ultrasonic cleaning solutions from various suppliers can provide satisfactory results. However, we were looking for a low foaming detergent that has lower pH to do a more thorough job of cleaning out all combustion products, surface tarnishing, and stubborn primer stains. Because of cost considerations with liquid-based products, we would settle out the solids, add refresher cleaner and try to extend the life of the solution. We were looking for a better detergent and also preferred a dry mix that was cost-effective for a once-and-done application.

Brass Shine

Upon trying a sample packet of Brass Shine we were immediately impressed with the performance of the product: easily dissolved in warm water, low foaming and the solution is clear which aids in observing solids accumulation. This last point helps us know when the detergent is exhausted and should be replaced. We secured a larger example from guntap™ and did further testing both on precision cleaning of rifle cases and also pistol cases.

Procedures

We know that Brass Shine was originally designed for pin tumble cleaning, which is another wet cleaning technique, so we started with guntap™ recommendations for mixing ratio. The ultrasonic cleaner we are using for this work is a 15-liter 40kHz model. We use a can-in-a-can technique where the cleaning solution is put into a pan and then this is immersed in the ultrasound tank. This way we can efficiently use the detergent in smaller volumes and keeps crud out of the ultrasonic tank.

We mix 2-liter (1/2 gallon) volumes using 1 tablespoon of Brass Shine and find that this is adequate for the precision cleaning of rifle cases but we also get great results for pistol cases, which generally are a little grungier. Unlike pin tumbling, it's not uncommon to provide heat in ultrasonic cleaner and we find

Brass Shine is even more effective with just slightly elevated temperature. Using fresh solution, cases are clean in about 20 minutes.

After cleaning, we remove the pan from the ultrasound, filter out the solution and immediately rinse cases with hot tap water. This is good practice to make sure all residual cleaning solution is off the brass to avoid any staining. We will either air dry the cleaned cases or, if in a hurry, we will put cases in the drying oven for 20 minutes at 150° F.

Up to this point we haven't had any requirements to increase the concentration of Brass Shine but believe it will be effective, as advertised, for cleaning very dirty cases and will follow guntap™ recommendations as needed. Because Brass Shine is cost-effective, we don't worry about recycling the mixed solution and just use new solution. We mix the powder in warm water, de-gas the solution for a few minutes, add brass, and we're good to go.

Results

We are very pleased with results we are getting from Brass Shine in the ultrasound. It's important to remember there is a difference between chemically cleaned, which you get with the ultrasound and pin tumbling, versus the cleaning/polishing you get from dry tumbling. We find dry tumbling is very challenging to get effectively inside bottlenecked rifle cases and remove all combustion products. We need a chemical cleaned outside surface of the case, but are concerned about the accumulation of media dust inside the case. Ultrasound with Brass Shine is the way to go for PounderLabs™!

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