Brownells Baking Lacquer is available in both Clear, for use on gray-finished actions and gun parts, and Black, for use on hard-to-blue items such as cast iron shotgun receivers, forend irons, Winchester Post-1964 Model 94 receivers, aluminum receivers and trigger groups, plus stainless steel parts.

**WARNING**

Never attempt to disassemble or reassemble a firearm unless you are absolutely certain that it is empty and unloaded. Visually inspect the chamber, the magazine and firing mechanism to be absolutely certain that no ammunition remains in the firearm. Disassembly and reassembly should follow the manufacturer’s instructions. If such instructions are not immediately available, contact the manufacturer to see if they are available. If they are not available at all, then you should consult other reference sources such as reference books or persons with sufficient knowledge. If such alternative sources are not available and you have a need to disassemble or reassemble the firearm, you should proceed basing your procedures on common sense and experience with similarly constructed firearms.

With regard to the use of these tools, the advice of Brownells Incorporated is general. If there is any question as to a specific application it would be best to seek out specific advice from other sources and not solely rely on the general advice and warnings given.

**HOW TO USE**

The gun or parts being coated will be baked in either a heat-treating oven or home oven. Check the overall length and remove barrels from receivers if necessary so the gun will fit the oven. DO NOT USE ON PLASTIC PARTS, WOOD OR ALLOYS WITH A MELTING POINT BELOW 400° F.

**Metal Preparation**

The Clear Baking Lacquer is used primarily for duplicating the gray finish as used by some major gun companies on their high-grade shotgun and rifle receivers. It can be successfully used on engraved or plain receivers and parts, since the baking temperature is low enough, it won’t affect heat-treated parts, solder joints or soldered-in precious metal inlays.

Parts should be pre-cleaned with TCE Cleaner Degreaser to remove grease, oils, silicones, and dirt. Polish as necessary. A finish “brighter” than 500 grit Polish-O-Ray” is not necessary, and may even cause poor adhesion of the Baking Lacquer. The most common metal preparation methods involve either wire wheel “brushing” of the surface, using a .005” to .006” wire diameter wheel at about 1750 rpm, or bead blasting the surface with fine beads at low pressure after polishing. Any brush effect should run parallel to the bore line for the best appearance.

The Black Baking Lacquer does not require polishing finer than 400 grit Polish-O-Ray. Fine bead blasting the surfaces to be coated will help adhesion.

**Application**

After polishing, wire wheel “brushing”, or bead blasting has been completed, soak the parts in TCE for several minutes. This will remove any remaining oil, grease, etc., that may have been missed, along with polish, bead blasting grit, and dirt from the surface. It will also help to clean out the interior of the action, as the parts will be heated to cure the finish, and any remaining oils may “run” under heat, causing problems with the final finish. After soaking the parts, allow them to air dry until all odor of the TCE has disappeared from them. To avoid contaminating the clean surface, do not use compressed air to dry them unless the air has been passed through a filter to trap moisture, oil and dirt. If you must handle the parts at this time, we recommend the use of fresh, clean, cotton polishing gloves.

Thin the Baking Lacquer as required by your spray equipment with Thinner/Reducer. A thin, even coat may be applied. Proper proportions are four parts Baking Lacquer to one part Thinner/Reducer. Less Thinner/Reducer may be used, if required by the equipment you are using, and the air pressure used. With any spray equipment, it is ABSOLUTELY NECESSARY to have CLEAN DRY air. Use of a filter/moisture trap in the air supply system will prevent contamination of the Baking Lacquer.

Apply thin, even passes of Baking Lacquer with your spray equipment. Inspect carefully to make sure you do not have any “bare” areas left, especially when using the Clear Baking Lacquer. After the parts are sprayed, let them dry completely for one to two hours before curing for approximately twenty (20) minutes at 325° F. in a heat-treating furnace or home oven.

**Safety Considerations/Working Areas**

Exercise normal safety precautions as with any paint product. Do not use near fire or flame. Provide adequate and proper ventilation. Wash thoroughly after use and before smoking/eating. See the can for additional safety information.

We recommend you make up a painting “booth” to keep overspray from contaminating your shop area by placing a large cardboard box on your workbench, weighting the inside bottom of it to keep it in place, and cutting a small hole in the back of the box, near the top, to fit the hose of a shop vacuum cleaner. Provide sufficient lighting to give a clear view of the parts being coated.

**Special Techniques For Engraved Guns**

Background areas on engraved guns can be filled in with Black Baking Lacquer, applied very sparingly with a fine artist’s paint brush or an airbrush. After the coating has dried, the surrounding areas can be carefully cleaned up with Thinner/Reducer on small cotton swabs, hand polished as needed, and the parts baked. After they have cooled, spray the entire gun with Clear Baking Lacquer and bake again, following the instructions above. This will give wonderful contrast with engraved animals or inlays in an engraving job. Don’t be afraid to experiment a bit to find ways to make the jobs better.
Removal Of Cured Baking Lacquer
Cured Baking Lacquer is so tough that it will resist most solvents and acids, but industrial-grade paint removers are usually strong enough to remove it. The most sure-fire method we have found to remove the cured finish is by mechanical means. Probably your best bet is to bead/abrasive-blast it off, then repolish and refinish as required. Of course, it can also be sanded or buffed off, but blasting is the quickest method.

Cleanup And Reassembly Information
Use Baking Lacquer Thinner/Reducer to clean up your spray equipment according to the equipment manufacturer’s recommendations. Dried, unbaked Baking Lacquer can be cleaned up with Thinner/Reducer. Remove any unbaked overspray from the inside of parts and actions with Thinner/Reducer and cotton swabs, paying close attention so you do not remove or damage any coating on visible areas that should be covered with Baking Lacquer. “Trial fit” the cleaned, degreased, internal parts in the coated receiver before baking, to make sure the extra thickness of the baking lacquer will not cause any interference in their movement.

Bake the parts at 325°F for twenty minutes, and allow to cool to room temperature. If parts are large or massive, you may need to bake at 325°F for up to an hour. Reassemble the gun following the manufacturer’s instructions.

If the barrel has been unscrewed from the receiver, be sure to check the headspace upon reassembly. Reassemble the firearm according to the manufacturer’s instructions. Check for proper functioning using ACTION PROVING DUMMIES. Make sure ALL SAFETY MECHANISMS are fully functional as designed and approved by the manufacturer. If these tests prove satisfactory, test-fire the firearm with live ammunition in a SAFE and APPROPRIATE manner. IMPORTANT! Start the live ammunition tests by first loading an ACTION PROVING DUMMY, then a live round, into the magazine. Only after several tests have been conducted in this manner should additional rounds be placed in the magazine and fired.