Professional Headlight and Lens restoration

We break down the headlight and lens restoration into a two-step process. Each step is very important in its own way and no steps can be skipped without sacrificing the quality of your restoration. The average headlight restoration takes approximately 25 to 40 minutes depending on the size of the lens, resurfacing method used, cleaning method used, and environmental considerations.

Step One – Surface Preparation & Restoration

We recommend masking off all painted surfaces surrounding the lens. This will protect the paint/chrome during the sanding and sealing process. If you can remove the light this might make the process easier however the time spent removing the light might not make up for it. If you are using the spray clear coat removing the lens might be your best option.

The resurfacing process is by far the most important step in the restoration process. The surface must be restored ensuring all oxidation, yellowness, debris, has been removed or this will be sealed on when the U.V clear coat / Seal coat is applied.

There are a couple of ways that are utilized to remove the oxidation from the surface. The most popular resurfacing methods are:

Chemical treatment – Chemical cleaners can be used to remove light to medium oxidation. SafeTclear’s chemical cleaner “Quick Clear” quickly attacks the surface of the plastic by molecularly heating the surface allowing the pours of the plastic to open. When wiped the oxidation is removed. Instruction: Simply apply Quick Clear to a microfiber towel. Wipe the lens horizontally ensuring not to stop until you reach the other side. Stopping in the middle can leave streak marks. We recommend starting at the top of the lens and working down. Apply light pressure as you do not want to burn the surface of the lens by applying too much pressure or apply to much product. After the chemical process we recommend lightly sanding with 2000 grit to prep for the seal coat. Without sanding there is a chance of the seal coat not securely adhering to the surface.

Sanding Treatment – The sanding treatment is the best way to ensure the best restoration. Sanding removes all imperfections and allows the surface to be leveled. The sanding method can be completed by utilizing a drill, air sander, electric buffer, or by hand. If you choose to use a power tool we recommend using a 3” backing plate with hook and loop wet sand paper. Start with the highest grit sand paper necessary to remove all oxidation. In most cases 1200 is a good grit to start with. The lower the grit the more work you will have to do to remove the deep scratches. We would recommend either starting with 800 or 1200 and work up to 2000, 2500, or even 3000 grit to finish it off. If you prefer to hand sand as many do we recommend starting around the same grit. 1200 or 800 depending on the oxidation level. When hand sanding we recommend working horizontally starting from the top and working down. Hand sanding allows you to feel the surface as you sand. This lets you obtain the perfect surface. Many times when using a power sander it is easy to over sand causing the surface to be uneven. How do you know if you are done sanding? You are looking for the surface to be hazing with no apparent scratches, no high or
low spots, and no clear areas. The entire surface should be hazy and appear to have a frosted look. Once you reach this stage wipe off the lens with a lint free towel to make sure all debris is removed.

**Buffing/Polishing Method** – This method is used most often by auto dealerships and car washes. This method is fast however provides no clear coat and in most cases the oxidation returns within 6 months. The buffing method is simply that. The technician utilizes an air/electric buffer with compound to remove the oxidation and yellowness from the lens. This is the fastest and cheapest process however in order to apply a seal coat a light sanding with 2000 grit would be needed for the clear coat to adhere to the surface.

**Step Two – U.V clear coat / Seal coat.**

Now that all of the hard work is completed its time to protect it. There are two main ways on sealing the lens. Either by utilizing a wipe on U.V clear coat or Spray on U.V clear coat. Both offer protection, but as everything else they both have their pro’s and con’s.

**Wipe On U.V Clear Coat –** 4EverClear is the wipe on U.V Clear Coat made by safeTclear. This is our most popular U.V clear coat as it is the easiest and quickest to apply. 4EverClear is a urethane polymer with built in leveling agents which provides years of protection. **Application of 4EverClear** – Apply 4EverClear to the rounded edge of a blue lint free towel that has been folded into a quarter size. Using the rounded corner as your application surface apply to the top of the lens and work down horizontally ensuring to overlap the prior pass. If you apply too much product to the surface and obtain a drip mark quickly wipe the surface with odorless mineral spirits and start again. If the product has dried re-sand and then re-apply the clear coat. 4EverClear dries on average in 10 to 15 minutes depending on humidity. Total cure time is around 4 to 6 hours. We recommend apply two coat of 4EverClear to obtain a deeper gloss and longer protection. Apply the second coat when the first coat is dry to the touch. To speed up the dry/cure time either place in the sun for U.V light or use a U.V light system. The average lifespan of 4EverClear is 2 to 4 years depending on environmental and vehicle conditions.

**Aerosol Spray U.V Clear Coat –** Acryligloss is the Aerosol Spray U.V Clear Coat made by safeTclear. Acryligloss provides the most protection however takes the most amount of work. Acryligloss is an acrylic polymer enamel that provided a hard, high gloss and flat surface. After the surface has been restored apply a light coat of Acryligloss in a horizontal fashion with the can 8 to 10 inches away from the surface. Keep the edge of the spray wet and ensure to overlap the prior pass. Allow the coat to dry (5 to 10 minutes) and lightly sand with 2000 grit to level the surface. Wipe the surface clean to remove all dust and debris and apply another coat. We recommend executing this process 3 or 4 times to layer the surface. On your final coat, let the surface dry completely. Sand the surface with 2000, 2500, or 3000 grit. Once sanded utilize a buffer/polisher to buff the surface to a crystal clear finish. This will provide the hardest/thickest surface replacing the OEM coating. Many technicians offer limited lifetime warranties when this process is applied. Due to the time and labor to apply this process most technicians have an MSRP of 40 to 50 percent more than the wipe on U.V Clear Coat process.
**Cure/Dry Time** - It is important to allow enough dry time between coats. No matter what clear coat process you choose they will have an average dry time. In most case when the product is dry to the touch and not tacky you can apply your second, third, or forth coat. Each coat will add time to your overall cure time. In most cases once the lights are dry to the touch they can be returned to your customer. (Depends on weather conditions). To speed up both dry and cure times utilizing a U.V Clear is recommended. Cure lights range from $75.00 for a simple IR spot light to $250.00 and up for L.E.D technology. If you don’t have a cure light simply place the vehicle in the sun.

For product information on 4EverClear U.V. Clear Coat, Acryligloss Aerosol U.V. Clear Coat, Headlight Polish, SafeTclear sanding disc’s packs, Sanding paper packs, Buffing/Polishing pads & machines, ProCure 1 lighting system, or further instruction visit us at safeTclear.com.

The best part is safeTclear.com offers 24/7 customer support. Have a restoration question? Simply send us an email and one of our technicians will respond quickly.

Thank you for using safeTclear Products,

Kimberly Schoeps – Owner