

DELTA KITS



# HEADLIGHT RESTORATION

GREAT RESULTS THE FIRST. TIME EVERY TIME.

THE CHOICE OF  
**TECHNICIANS WORLDWIDE**



TREMENDOUS RESULTS & **ENORMOUS PROFITS**  
THE ULTIMATE HEADLIGHT COATING WITH OUR INFINITY PROPRIETARY FORMULATION



# EXPERIENCE

## THE DELTA DIFFERENCE

Thank you for your interest in Delta Kits professional windshield repair and headlight restoration products. Delta Kits has many satisfied customers around the world, and we appreciate the opportunity to show you why. Delta Kits is, and always has been, at the forefront of the market since the company's inception in 1984. We do this by selling only the highest quality products in the industry and backing that up with exceptional service and support.

Brent Deines, President

## QUALITY PRODUCTS

Our industry leading tools, resins, and equipment are preferred by professional windshield repair and headlight restoration technicians worldwide and are respected for quality, durability, and ease of use.



## PROVEN RESULTS

Our windshield repair and headlight restoration products are used by over 10,000 customers in over 75 countries. Let us also grow your revenue and profit. We also provide a 30-day money back guarantee.

Our team of award-winning windshield repair experts has almost 70 years combined experience as educators, technicians, and leaders in the industry – setting a standard of excellence for auto glass repair.

## INDUSTRY EXPERTS

# CERTIFIED HANDS-ON TRAINING



In today's working environment, continuous learning and professional development are required to stay competitive and abreast of new developments. This is especially so in the windshield repair industry. Windshield repair training through Delta Kits is an investment in your career that offers many tangible benefits. Windshield Repair can launch a new career, broaden your area of expertise or be used as a refresher for your work. It can demonstrate your commitment to your profession, show continued mastery of your field, and offer greater recognition and credibility from your peers, within your company or in today's competitive job market.

## STAY CONNECTED WITH US

### Connect with Us

Visit us at [deltakits.com](http://deltakits.com) to learn more about Delta Kits products, view our monthly specials, and browse our extended gallery of instructional videos.

### The Wise Crack Newsletter

You can sign up for our monthly newsletter, The Wise Crack, the industry's most widely circulated windshield repair newsletter. It includes helpful windshield repair tips, product specials, news and marketing advice.

### Windshield-Repair-Forum.com

Join the conversation at the world's largest windshield repair forum. Talk to fellow technicians, ask questions, get advice, and discuss industry trends, all at [windshield-repair-forum.com](http://windshield-repair-forum.com).

### WindshieldReferral.com

Promote your business for FREE at [windshieldreferral.com](http://windshieldreferral.com) where prospective customers can search for your service by city, state or company name on any search engine.



[facebook.com/DeltaKitsInc](https://facebook.com/DeltaKitsInc)



[youtube.com/DeltaKits08](https://youtube.com/DeltaKits08)



[instagram.com/DeltaKitsInc](https://instagram.com/DeltaKitsInc)



[twitter.com/DeltaKits](https://twitter.com/DeltaKits)

# HEADLIGHT RESTORATION PROCEDURE

## 1. SETTING THE CUSTOMER'S EXPECTATIONS

1.1. Only headlights made from polycarbonate can be restored, including marker and taillights. Headlights, taillights, and marker lights made of glass cannot be restored using this method.

1.2. Drive away time (the time between when you apply the coating and when the car can be driven) for Infinity Headlight Coating is approximately 30 minutes. See Section 9, Drying the Lens for detailed instructions.

1.3. Be sure the customer understands that you will be restoring the outside surface of the lens. Cracks, condensation, dirt, or damage to the inside of the lens cannot be restored using this procedure.

1.4. The vehicle should not be hand washed for at least 24 hours after the headlight restoration has been completed and you should wait at least 1 week before going through an automatic carwash. Also, never pressure wash the restored headlights. Failure to follow this recommendation may result in scratches, spotting, or other damage to the coating.

## 2. LOCATION & ENVIRONMENTAL CONSIDERATIONS

2.1. For optimal results the vehicle should be parked in an area where it will stay clean and dry, preferably in a shop or garage and out of the heat generated from direct sunlight. Application in direct sunlight can cause the coating to dry prematurely and not coat evenly.

2.2. A minimum temperature of 50 degrees Fahrenheit is recommended for best results. When the ambient temperature is below 50 degrees Fahrenheit, store Infinity in a heated location until you are ready to use it. A heater, heat lamp or hair dryer may be used to warm the headlights to the proper working temperature and leaving the headlights on will help warm the lenses from the inside.

2.3. A maximum relative humidity of 85% is recommended as high humidity will increase the required dry time. If applying in conditions where relative humidity is greater than 85%, use a hair dryer or other heat source to expedite drying.



Example of nonrepairable crazing damage

---

### 3. PERSONAL PROTECTION

3.1. Always wear safety glasses, a dust mask, and skin protection. You may also wish to wear an apron to protect your clothing. Gloves or a barrier cream skin protectant such as Derma Shield are recommended for protection of sensitive skin.

---

### 4. PREPPING THE VEHICLE AND LENSES

4.1. If the hood of the vehicle overlaps the headlight lens, lock it into the upright position for easier masking and cleanup.

4.2. Mask around the headlight using an abrasion resistant masking tape. This will help protect the vehicle's paint during the restoration process.

4.3. As an option, covering the engine compartment and all exposed painted surfaces with plastic or paper masking material will make cleanup easier. Plastic dust from sanding can drift ten feet or more!

4.4. Thoroughly wet the entire surfaces of each headlight lens with Clean2Prep, wait 10 seconds, and wipe clean with a lint free paper towel. Avoid contact with painted surfaces.

4.4.1. Should accidental contact with painted surfaces occur, immediately spritz with clean water and wipe dry.



Properly prepped vehicle and lenses

---

### 5. EXAMINE THE LENS FOR IMPERFECTIONS

5.1. Cracks or crazing (a network of fine cracks below the surface of a material) that may not have been visible before cleaning should be pointed out to the customer.

5.2. Dust, moisture, and other contaminants on the inside of the lens will not be removed by this headlight restoration process.

5.3. Explain to the customer that damage below the surface of the lens and contaminants inside the light cannot be removed by sanding and polishing. This restoration process will improve the appearance of the lens, but cosmetic imperfections will still be visible if one or more of the above conditions exist.

## 6. SANDING THE HEADLIGHTS

Sanding the headlights is a multi-step process that first removes the factory protective coating, oxidation and contaminants from the surface of the headlight lens. A random orbital sander is used for even sanding and to minimize the risk of leaving burns or blemishes that can occur with the use of a rotary sander or drill. After each sanding step the lens should be smooth and clean. It is very important to sand evenly using long strokes with light pressure, keeping the sanding tool moving at all times.

**LET THE TOOL DO THE WORK; THE DISC SHOULD BE SPINNING THROUGHOUT THE PROCESS.**

### 6.1. Sanding with 320 grit

6.1.1. Begin by attaching the foam interface pad to the backing plate on the random orbital sander. Be sure the pad is centered on the backing plate. The interface pad will remain on the sander for the remainder of the sanding process.

6.1.2. Attach a 320 grit sanding disc to the interface pad and make sure it is properly centered.

*\*Some vehicles have an extremely hard factory finish on their headlights. If after 1 minute of sanding the contamination and original coating does not appear to be coming off with the 320 grit disc, switch to a 180 grit disc, then proceed with the 320 grit disc after the hard finish has been removed.*

**Note: Experienced technicians may start with a 500 grit disc if the lens has minimal deterioration but new technicians should always start with a 320 grit disc for best results.**

While sanding, if the disc becomes clogged at any time, simply tap it against a damp lint free paper towel. If this problem persists, replace the disc with a new one.

6.1.3. Using speed setting number 5, sand the lens with light even pressure until you have achieved a surface that is white in color with no yellowed polycarbonate visible. Take your time on this step as the success of each additional sanding step is dependent on the thorough removal of contaminants and oxidation. If you notice streaking, spots or discoloration during the sanding process, check the disc for contaminants. Tape, rubber or plastic picked up from the edge of the lens is the primary cause of these anomalies in the sanded lens surface.

# SANDING THE HEADLIGHTS

6.1.3.1. Using a lower speed may be preferable when sanding around the edges, alignment tabs and other tight spots.

6.1.3.2. You may need to remove the sanding disc from the sander and hand sand to adequately sand extremely tight areas.

6.1.4. Spray the lens with clean water and wipe dry to remove sanding dust.

6.1.5. Thoroughly inspect the lens to ensure the surface has been sanded evenly and all traces of contamination removed. If any inconsistencies remain, sand, rinse, dry and inspect the lens again. Repeat as often as necessary until the desired results are achieved. The lenses should now be smooth, white, and uniform in appearance.

6.1.6. Repeat this process on the second headlight using the same sanding disc, tapping the disc on a damp, lint free paper towel to clean before proceeding.

## 6.2. Sanding with 500 grit

6.2.1. Repeat the sanding, cleaning and inspection procedure used with the 320 grit disc, sanding for approximately 2 minutes per lens. It is critical to remove all sanding marks from the 320 disc with the 500 disc before proceeding to the 800 grit disc.

## 6.3. Sanding with 800 grit

6.3.1. Repeat the sanding, cleaning and inspection procedure again, sanding for approximately 2 minutes per lens.

### SANDING QUICK CHART

These times are recommended minimums. Longer times will not harm the lens and may be necessary depending on the extent of the oxidation.

SANDING DISC GRIT	RANDOM ORBITAL SPEED	APPROX. TIME PER LENS
180*	5	2 minutes
320	5	2 minutes
500	5	2 minutes
800	5	2 minutes
1200	5	2 minutes
1500	5	2 minutes
3000	5	2 minutes

*Sanding correctly and completely with the 500 and 800 grit discs will have the greatest impact on the final result of your headlight restoration job by minimizing or eliminating swirl marks.*

#### 6.4. Sanding with 1200 grit

6.4.1. Repeat the sanding, cleaning and inspection procedure again, sanding for approximately 2 minutes per lens.

#### 6.5. Sanding with 1500 grit

6.5.1. Repeat the sanding, cleaning and inspection procedure again, sanding for approximately 2 minutes per lens

#### 6.6. Polishing with 3000 grit

6.6.1. The 3000 grit disc is a foam polishing pad that does not require the use of any polishing compounds or water and works best at a slightly higher speed than a sanding disc.

6.6.2. Increase the variable speed setting to (6) and polish each lens for 2 minutes or longer. The goal is to achieve the clearest and glossiest finish possible before applying Infinity coating.

Optional to achieve a higher level of clarity go to Step 10.1 Next level polishing

**You now have a very important decision to make. If you will not need to move this vehicle and can wait a half hour or so before removing the masking tape and cleaning up, go to section 7.1.1. If you will need to move this vehicle or if you are a mobile technician and need to leave immediately after the protective coating has been applied, proceed to section 7.1.2.**

---

## 7. FINAL CLEANING OF THE LENS

### 7.1. Cleaning the Lens

7.1.1. *Recommended* – Leaving the tape in place: Wipe or brush loose dust from the tape around the lens. You may also want to take this opportunity to remove any dust from the paint and surrounding areas. The goal is to prevent any dust from getting on and sticking to the surface of the lens as the coating dries.

7.1.2. *Alternative* – Removing the tape: Remove the masking tape and any other masking materials used to protect the vehicle during the sanding process. Clean up any sanding dust from the vehicle's surface and your work area.

7.2. Wet the entire lens with Clean2Prep and wipe thoroughly, removing all dust from the lens.



# FAST & EFFICIENT

7.3. Wipe the lens with a clean and dry with a lint free towel. Pay special attention to the edges where liquid and dust tends to gather. The lens must be completely dry before applying the headlight restoration coating.

7.4. Repeat these steps for the second headlight.

7.5. If you removed the masking tape, take extra care when applying the coating to ensure no coating comes in contact with painted surfaces.

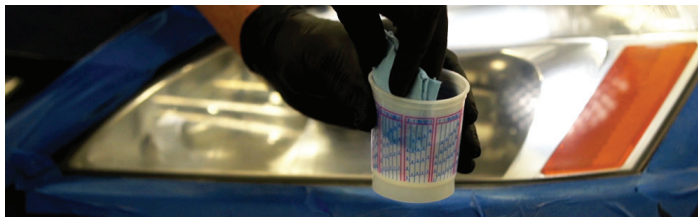
---

## 8. PREPARING & APPLYING THE PROTECTIVE COATING

8.1 Infinity Headlight Restoration Coating is a single part coating. Lightly swirl the bottle to displace any settling of the product. **DO NOT SHAKE**. This can cause air entrapment in the liquid. Use the graduated cylinder to measure 15 ml of the coating in the mixing cup.

8.2. After pouring the coating into the mixing cup, it will have a pot life of approximately 1 hour. However, when applied to the lens in a thin coat, the coating will begin to dry immediately with a working time of 15 - 20 seconds.

8.3. Fold the lint free towel into a square shape that will fit inside the mixing cup and dip it into the coating solution until saturated, but not dripping.



8.4. Using even strokes that overlap slightly, apply the coating to the lens, starting at the top and using horizontal strokes. Be sure to inspect the lens from multiple angles to ensure complete coverage.

8.5. Avoid excess wiping and runs by moving quickly across the entire surface of the lens without stopping. A thin coating is all that is required. Coat the entire lens within 20 seconds to avoid streaking.

8.6. It is normal to see wipe marks from the paper towel immediately after application. If the lens has been lightly and evenly coated with no drips or runs, the wipe marks will self-level and be invisible by the time the lens is dry to the touch.

---

## 9. DRYING THE LENS

9.1 Dry time for Infinity is approximately 30 minutes if you are going to allow the coating to air dry. The coating must be dry to the touch before cleaning up and allowing the vehicle to be driven.

9.1.1. Circulating air over the lenses will accelerate the dry time by as much as 50%. A simple fan works well for this. Warm air will provide the fastest dry times.

### 9.2. Clean up

9.2.1. If you did not clean up the vehicle prior to the application of the coating, do not start cleaning up until the coating is dry to the touch. Test for this in an inconspicuous spot with your finger tip.

9.2.2. After testing the coating's dryness carefully remove the masking tape and wipe the surrounding areas to remove any remaining sanding dust.

9.2.3. Advise the customer to wait at least 24 hours before hand washing their car, wait at least 1 week before going through an automatic car wash, and to never pressure wash the restored headlights. Failure to follow the recommendations may result in scratches, spotting, or other damage to the headlights.

---

## 10. OPTIONAL POLISHING STEP

### 10.1 Next level polishing

10.1.1 An extra step that can take your headlight restoration to the next level is polishing, with Delta Kits' Premium Polishing Compound, item number 54315, sold separately. The compound is water-based and is used to remove fine scratches and swirl marks left on the lens. For optimal results, we recommend applying the compound with the high-quality variable speed polisher or an equivalent rotary polishing tool with a three inch foam polishing pad.

Continue with Step 7. Cleaning the Lens



## FREQUENTLY ASKED QUESTIONS

For answers to the most commonly asked questions about headlight restoration, visit our frequently asked questions page at [www.deltakits.com/askan-expert/](http://www.deltakits.com/askan-expert/). If you don't find the answer you are looking for, please be sure to give us a call or drop us an email. One of our friendly staff members will be happy to assist you.



### **WHAT IS THE IDEAL APPLICATION TEMPERATURE FOR INFINITY COATING?**

Coatings will perform differently at different temperatures. The ideal temperature range for application is between 50 degrees Fahrenheit and 100 degrees Fahrenheit. While it is still possible to apply outside this temperature range, the viscosity of the chemicals may be less than optimal.

The colder the temperature, the more viscous the coating will become. At temperatures below 50 degrees Fahrenheit the increase in viscosity may make application more difficult resulting in streaks and increased dry time.

Conversely, temperatures above 100 degrees Fahrenheit will lower the coating's viscosity, increasing the risk of runs and reducing the thickness and uniformity of the final coating. The coating needs to be viscous enough to allow for curing at a uniform thickness.

### **WHAT IS THE SERVICE LIFE OF A RESTORED HEADLIGHT?**

Depending on driving conditions, environmental factors, and the customer's care of their vehicle, the expected service life of a headlight restoration is at least one year and may be as long as 3 years.

In development trials, headlights restored using Delta Kits' coatings were exposed to heat, intense sunlight, sand, pollution, car wash chemicals and road salts under normal driving conditions. These elements all contribute to the discoloration of new and restored headlights. Proper preparation of the lens and application of the coatings are essential for maximum service life, as are adequate dry and cure times.