

*Technical Data Sheet*

**CP-6900 Illuminator Headlight Restoration Coating**

**DESCRIPTION:**

**Illuminator** is a UV cure coating developed to restore the factory look to plastic headlights. This headlight restoration coating is formulated to cure with "direct sunlight" or with 160 watt UVA bulb. Restoring the headlights will increase light output tremendously improving night time driving safety. This coating has withstood 3 years of Florida climate exposure with no deterioration.

**FEATURES:**

- ☑ Cures with natural direct sunlight
- ☑ Excellent leveling
- ☑ Excellent adhesion
- ☑ Superior scratch resistance
- ☑ Excellent chemical resistance
- ☑ Can be applied with a PreVal Sprayer
- ☑ Long-term durability
- ☑ Cures with 160 watt UVA bulb
- ☑ Guaranteed performance

**COMPATIBLE SURFACES:**

- Polycarbonate
- Lexan

**MATERIALS NEEDED:**

**Application:**

- CP-6900 Illuminator Restoration Coating**
- Illuminator Cleaning / Sanding Solution**
- IPA Final Wipe**
- masking tape
- 6" or 12" masking paper (optional)
- Clean lint-free rags
- 600-800 grit wet/dry sand paper
- 1500 grit wet/dry sand paper

**Curing Process:**

**UVA Light Curing**

- Fixtures with 160 watt UVA light bulbs or equivalent
- Dark Safety Glasses

**Sunlight**

- Direct Sunlight (See Curing Process-Direct Sunlight)

**PREPARATION:**

**Cleaning:**

Spray **Illuminator Cleaning / Sanding Solution** on the headlight and surrounding area. Allow to lay on the surface to loosen bugs and residue. Wipe with a clean, dry cloth.

**Masking:**

Mask off around the headlight.

**Sanding:**

Apply **Illuminator Cleaning/Sanding Solution** to the headlight using it as a lubricant for the sandpaper. Sand surface with 600-800 grit sandpaper to remove the aged coating from the headlight (approximately 2 minutes). Re-apply the Cleaner/Sanding Solution to keep the surface wet. Sand until the yellow residue disappears from the surface. The wiping cloth should be free of yellow stain when aged surface is completely removed. The headlight surface will be an opaque/white color when the coating is completely removed. Finish sand with 1500-2000 grit sandpaper to remove the 600-800 grit sand scratches (approximately 2 minutes). Use the same procedure keeping the surface wet with the Sanding/Cleaning Solution. Re-clean the surface with **Illuminator Cleaning / Sanding Solution**.

Blow off the surface using compressed air to make sure **Illuminator Cleaning / Sanding Solution** is completely removed from all crevices. If compressed air is not available, wipe the headlight surface dry with a clean, dry wiping cloth. Wipe the surface until it is clean and dry.

**INSTRUCTIONS (application)**

Shake the **Illuminator Restoration Coating** well before using. Make sure product is at room temperature 72°F (22.2°C). Air temperature must be at least 60°F to apply the headlight restoration coating. Pour approximately 2-3 oz. of the material into spray gun or other spray device. Secure the lid back onto **CP-6900 Restoration Coating**

**APPLICATION:**

Apply coating until gloss level is reached. Apply UVA light immediately after applying the coating.

**CURING PROCESS:****DIRECT SUNLIGHT:**

The direct sunlight curing process is dependant on the angle of the sun to the earth. Rule of thumb is to apply the coating between the hours of 3 hours after sunrise and 3 hours before sunset. Example: If sunrise is at 6:00 AM and sunset is at 8:00 PM ( Late Spring and Summer months), apply the coating between the hours of 9:00 AM and 5:00 PM.

**Air temperature must be at least 60°F. You must have at least 15 minutes of direct sunlight.**

**UVA LIGHT EXPOSURE:**

**It is very important to wear dark safety glasses when using a UVA light. Read safety instructions for using UVA light.**

**CP-6900 Restoration Coating** can be cured with 160 watt UVA bulb in 5 minutes at a distance of 4-6". With a 400 watt H & S UVA light the coating will cure in 2 minutes at a distance of 10-12".

**(Note) Cure time is dependant on light energy and size of foot print. It may be necessary to move the UVA light around the headlight to cure all areas.**

**EQUIPMENT & ACCESSORIES**

**Light Fixtures with 160 Watt UV Light Bulbs and Safety Glasses  
160 Watt UV Self-Ballasted Curing Light Bulb**

**TIPS FOR SUCCESS:**

Start the curing process immediately after applying the coating to avoid contaminating the surface with dirt and debris. Apply in less than 70% humidity.

**TECHNICAL DATA**

Color	Clear
Activator/Hardener	N/A
Reducer	N/A
Mix Ratio	N/A
Pot Life	N/A
Number of Coats	Apply until acceptable gloss level is reached
Flash Time—inside application	0 minutes
Direct Sunlight	0 minutes (no flash time)
Dust Free	N/A
Dry to Sand 70°F (21°C) 50% RH	N/A
Delivery	Immediately after cure
Curing Process	Apply UV light (Sun or artificial) immediately after applying
coating	
Gun Set-Up Gravity Feed (HVLP)	
Air Pressure @ Gun, HVLP	By gun manufacturer
Air Pressure @ Gun, Conventional	40-45psi
Film Thickness / coat (DFT)	
Regulatory Limits	5.0 lbs/gal (600 g/l) bulk
Regulatory V.O.C.	5.23 lbs/gal (627 g/l)
Actual V.O.C.	4.51lbs/gal (541 g/l)
% Solids Sprayable by Weight	19%
Coverage Sq. Ft. / gal @ 1 mil*	N/A
Package	8 oz. can
Number per case	N/A

**UVA Curing Safety Instructions****CAUTION****UV Background:**

The sun emits UV radiation in essentially three bands: UVA, UVB and UVC. The much-talked about ozone layer filters out almost all of the UVB and UVC, leaving about 99 percent of what reaches us is UVA. UVA is generally considered the **least** harmful. Still, it does contribute to skin aging, DNA damage and possibly skin cancer. UVB and UVC have some industrial uses but are NOT a part of the equipment used to cure automotive UV products.

**CAUTION****Operator Safety:**

UV-curing lamps should only be used for curing paints and other associated refinish products. For personal safety, you still should wear eye protection that's rated for UV protection. You should also use common sense and treat the UV light source as a powerful tool. Basic paint shop safety rules apply like with any other sprayed paint product. Wear a respirator, wear safety glasses and wear gloves when handling wet paint products. And read technical data sheets and MSDS sheets to acquaint yourself with any qualities of the products you use that you might not be familiar with. Always wear protective clothing when operating UV-curing equipment. This would be similar to clothing used during normal solvent-based coating applications. Direct exposure to skin may cause irritation similar to that experienced from long-term sun exposure.

**UVA- Blocking Eye Protection:**

Protective eyewear is essential when curing with UV-emitting equipment. Never look directly at the UV-light source. Use ANSI Z87.1 Eye protection. Bright visible light emitted by some UV curing systems can be objectionable to some workers and can cause eyestrain. Tinted eye protection and/or opaque/tinted shielding can be utilized to address this concern.

## **TECH TIPS**

When using UVA light to cure the headlight restoration coating, adjust the tripod fixture to the correct height and angle before applying the coating. Plug the lights in to the power source. Place the UVA light next to the vehicle so the curing light can be applied to the headlight immediately after applying the coating.

When applying the **Illuminator Restoration Coating** , apply a uniform light coat to the headlight. Apply just enough coating to get a uniform, smooth surface. **Do not over apply the coating.** Apply the coating in an area with good ventilation or air flow.

Immediately after applying the coating place the UVA light in front of the headlight to start the curing process.

If too much material is applied to the headlight or if the curing process is not started immediately, the coating may fog. This is caused by solvents in the coating attacking the polycarbonate plastic.