

Detailing (REF04)

Objectives Worksheet



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REF04-STHO01-E

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Module 1 - Inspecting The Finish

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Cleaning For Inspection**Washing**

When washing exterior surfaces, use a _____ car wash soap. Powdered soap may not completely dissolve. The rinse water should _____ off the surface, not bead. Beads will leave water spotting.

Drying

Dry using a _____ chamois or 100% cotton terry towel.

Inspection Tools**Magnifier**

A magnifier can determine how _____ a scratch is, or whether a defect has etched into the surface or is just sitting on top.

Film Thickness Gauge

Electronic film thickness gauges are the only option for detailing, since the finish must be measured in tenths of one _____. Electronic film thickness gauges are available for measuring on steel or aluminum.

Types Of Finish Defects**Initial Inspection**

Do the initial inspection of a refinished vehicle in the _____, if possible.

Refinish Defects That Can Be Detailed

The types of defects that might be able to be removed by detailing, without refinishing, include minor runs and sags that did not change the color, overspray, dirt or dust particles, inconsistent _____, and sandscratch swelling.

Defects Beyond Detailing

Defects that cannot be removed by detailing and must be refinished include _____, pinholes, wrinkling or lifting, solvent popping, and any defect that affects the finish _____.

Defects Beyond Detailing (cont'd)

Other defects that cannot be removed by detailing include a _____ that can be felt by drawing a fingernail across the surface, a color mismatch, _____ of another color into the topcoat, and insufficient hiding.

Detailing Chemistry**pH**

On the pH scale, number 7 is neutral. Numbers _____ 7 are acidic. Numbers _____ 7 are alkaline.

All-Purpose Cleaners

All-purpose cleaner is _____. Most stains and environmental finish defects are _____, so all-purpose cleaner neutralizes the defects. All-purpose cleaners should not be used as a car wash soap, leather cleaner, and wheel cleaner for removing brake dust.

Label Properly

Requirements for a workplace label are the product _____, as stated on the SDS, and any hazardous _____ from the original label.

Module 2 - Finish Defect Removal

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Film Thickness**OEM Finish Maximum Removal**

Whenever removing a defect from an original OEM finish, the general recommendation is to remove no more than _____ of topcoat. Removing excessive film thickness may cause hazing, discoloring, peeling, or finish failure.

Refinish Maximum Removal

On a refinished surface, the minimum clearcoat thickness the paint maker recommends that should remain after detailing to maintain proper UV protection and warranty preservation averages about _____ mils.

Monitor Film Thickness

When making the initial film thickness reading, _____ the readings to use as a starting point for buffing or sanding. An extreme change across one panel may mean body filler is present. The film build is usually _____ on vertical side panels than on horizontal panels.

Overspray Removal Methods**Clay**

Clay is a nonaggressive material that is specially formulated for defect removal. _____ clay is not a substitute. Clay works on any _____ surface. Clay will not work on porous material, especially if contaminants have penetrated the surface.

Using Clay

Clay should not be used _____. Eventually, the clay bar should be replaced. Discard if it is _____.

Other Overspray Removal Methods

Besides clay, other methods for removing overspray include scraping on glass with a _____ razor blade, applying a solvent from a spray bottle and wiping off the overspray. Other methods also include using a sponge pad and an adhesive cleaner on fresh overspray or a mild buffing compound on dried overspray, and sanding, followed by buffing, in extreme cases. Do not use _____ wool, which is too aggressive, and also leaves metal fibers in crevices that will corrode.

Sanding Process**Sanding**

The sanding process is like _____ the surface. The defect, such as excessive orange peel, is brought down to the level of the surrounding surface.

Using Nib Removal Tools

_____ removal sanding tools may be small sanding blocks or pads.

Wet Sanding

Hand wet sanding is done using wet / dry sandpaper on a sponge-backing pad. Keep the surface wet with a water _____ or a _____. Do not use a sponge dipped in a bucket, which makes it too easy to recycle the sanding sludge back onto the surface.

Wet Sanding (cont'd)

When hand wet sanding, generally start with P1500 grit. If there is no progress, start with the next aggressive grit, P1200. When the defect is removed, switch to a _____ grit to remove the previous grit scratches, not skipping more than one grit.

Machine Sanding

The machine finish sanding process uses a _____ sander, which has a shorter stroke, and is therefore less aggressive, than a regular dual-action (DA) sander. A soft interface pad, used when dry sanding, makes the process even more less aggressive than sanding with a regular DA. The grit selection varies with the system being used. With some dry systems, the most aggressive starting grit is P800, which is equivalent to P1200 when hand wet sanding.

Buffing**Buffing Materials**

Three basic types of buffing materials include _____ for removing defects, _____ for restoring gloss and removing very minor defects, and waxes and sealants, for extended protection.

Rotary Buffers

Machine compounds and polishes are best applied with a rotary buffer. Rotary buffers that have variable speed at the trigger with a range of 0 - 1,800 rpm are best. The speed should never exceed _____ rpm. Start a rotary buffer when it is _____ the panel.

Buffing Pad Types

Buffing pads are available in wool or foam. Foam buffing pads do not give off lint, but generate more heat than wool because there is more contact with the surface. Wool buffing pads are naturally more _____ than foam. For this reason, wool pads are more likely to leave _____ marks.

Buffing Methods

Generally, when using a power rotary buffer, change _____ when switching to a different material. Buff away from a _____ body line rather than into it. The finish is thinner along body lines. One option is to avoid body lines when machine buffing, or apply a strip of masking tape on the body line, to avoid cutting through. Later, work the body line by hand.

Other Existing Refinish Damage**Removing Scratches**

Scratches in a finish require bringing the surrounding finish to the _____ of the scratch.

Scratches That Cannot Be Removed

Generally, if a scratch can be felt when drawing a fingernail backwards across it, it is at least _____ deep and cannot be removed by detailing.

Hard Water Spotting

Hard water spotting is usually on the _____ of the surface, removable by a good car washing.

Acid Rain Treatment

Treat acid rain damage by _____ the acid by washing and repeatedly rinsing. If acid rain spots reappear after repeated rinses, apply a baking soda solution.

Rail Dust

Rail or metal dust is _____ particles that settle into finished surfaces.

Removing Rail Dust

To remove rail dust, Do not _____ or _____. The particles will likely break off at the top and scratch the surface beyond a detailing repair. Assess the problem and remove by starting with the least aggressive method. Try _____ first.

Clearcoat Degradation

Clearcoat degradation is the result of a clearcoat being exposed to the _____ of the sun for a long time. On single-stage finishes, the result is oxidation. Clearcoat degradation is most severe on dark colors exposed to heat.

Module 3 - Final Detailing

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Interior Detailing

Checklist

A _____ ensures that all steps are done, without repetition, and in the proper order.

Vacuuming

When vacuuming, a _____, ahead of the vacuum nozzle, will pick up the nap on carpets and upholstery and work the dirt or salt out of the fabric.

Fabric Carpet And Seat Shampooing

When shampooing fabric carpet and upholstery, use a soft-bristled brush or coarse sponge to gently work the shampoo. Clean the _____. Do not try and work the cleaner into the backing. Use as little _____ as possible. Consider an extractor as an option. An extractor applies the water and shampoo and removes the solution in one step.

Only use a mild shampoo, close to pH 7, on seat belt fabric. Avoid chemical cleaners, especially petroleum-based cleaners, which will deteriorate the webbing.

Stain Removal

pH Of Stains

Common stains in carpets and seats are mostly _____, or below 7 on the pH scale, and can be neutralized with an alkaline solution, such as all-purpose cleaner.

Stain Removal Methods

The best way to remove a stain is by applying the cleaning solution _____ the stain. This allows the solution to wick into the stain. Then use a clean, dry cloth and blot the stain. Follow with a water rinse and blot again. If the stain does not come out, repeat the process.

Odor Removal

Remove Odor Source

The first step in removing odors is to _____ and remove the source.

Odor Eliminator

Spray a chemical _____, if needed. Do not spray or hang a deodorizer, which only masks an odor.

Interior Treatments**Conditioners Or Dressings**

Conditioners or dressings should be _____-free for collision repair facilities.

Cleaning Leather

Leather interior surfaces must be cleaned with a cleaner designed for _____, not vinyl, and must be conditioned with a leather dressing or oil.

Final Exterior Detailing**Clean Glass**

When cleaning glass with applied window tinting, use a vinegar-based glass cleaner or any other glass cleaner that does not contain _____. Make sure to clean the top edge of the door glass. This means lowering door glass or opening the door after cleaning the rest of the glass.

Waxes Or Sealants

Waxes and sealants form a thin _____ coating, and help protect the finish from UV rays, acid rain, bird droppings, and minor abrasions. Waxes and sealants also enhance finish gloss, and may be considered a sacrificial coating.

Final Check And Delivery**Excess Polish Or Wax**

When doing a final exterior check, look for _____ polish or wax in hidden areas. Remove the polish or wax with a small brush.

Care Tip Sheet

The checklist can be signed and given to the customer along with a _____, which explains how to take care of a newly refinished and detailed vehicle. For example polish occasionally to protect the finish, clean off bird droppings and tree sap quickly, do not allow rain drops to dry on the surface, and do not wash the vehicle in direct sunlight.

Detailing Extras**Cleaning Convertible Windows**

Convertible windows are usually clear plastic. Do not use _____ cleaners on clear plastic. There are special clear plastic cleaners and polishes available. These materials can also be used on tail lamp lenses, instrument gauge lenses, and other clear plastic surfaces.

Cleaning Wheels

When cleaning wheels use the _____ method that will do the job. Painted or clearcoated wheels may only require a mild all-purpose cleaner solution. Wait until the wheels are _____. Washing wheels when the wheels are hot from driving affects chemical reactions of the cleaner being used. Clean one wheel at a time. This assures the cleaner will not dry on the surface, which lessens the cleaning action and makes it difficult to rinse clean.

Tire Dressings

After washing the wheels and tires, apply a tire dressing that is specifically made for external rubber surfaces. Tire dressings may also be used on unpainted black _____ surfaces.

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