



# DIAMOND FINISH CLEAR

## TDS/DIRECTIONS & APPLICATION INFORMATION



*DiamondFinish Clear is a high performance, rock-hard, water-clear topcoat, designed for spray or brush application over most metal and painted surfaces, including highly polished aluminum and chrome. DiamondFinish Clear is a permanent, high solids, moisture cured single component clear coat.*

*To achieve expert results, please take the time to carefully read and understand the following directions before you begin your restoration project. These directions are meant to be general guidelines only and do not cover every application or environmental situation. If you have remaining questions or concerns, please call us for technical assistance.*

**ALWAYS WEAR PROTECTIVE GLOVES AND SAFETY GLASSES. ALWAYS WORK IN A WELL-VENTILATED AREA. Please heed all warning and caution notices on all KBS products. For Professional Use Only. PROUDLY MADE IN THE USA!**

### COVERAGE:

Theoretical coverage at two mils is 400 sq.ft. per gallon (9.8 m<sup>2</sup>/liter). Recommended thickness of four mils would require at least two full coats. At least three coats are recommended for marine applications. Material losses during mixing and application will vary and must be taken into consideration. Expect up to 50% less coverage on bare wood, rough, or sandblasted surfaces.

### SURFACE PREPARATION:

#### CLEAR COATING OVER AN AUTOMOTIVE TYPE BASE COAT:

Apply base coat as per manufacturers directions. Allow to dry which is normally about one hour or as directed by the directions for the base coat. *Note: If the surface being clear coated will be consistently exposed to sunlight, please be sure your base coat is UV stable.*

#### CLEAR COATING OVER CURED COATINGS:

Clean surface with KBS Klean diluted **10 parts hot water to 1 part KBS Klean**. Scuff with 600-1200 grit sandpaper and repeat cleaning process. Rinse & allow to thoroughly dry.

*Note: If the surface being clear coated will be consistently exposed to sunlight, please be sure your base coat is UV stable.*

#### CLEAR COATING BARE METALS:

Metals should be freshly polished or sanded to the finish required.

For ferrous materials, clean with KBS Klean at a dilution rate of **10 parts hot water to 1 part KBS Klean** (10% strength) with the use of a soft non-abrasive cleaning pad. Rinse the KBS Klean solution immediately making sure you do not let it sit on the surface and dry in a way that minimizes any water stains.

For non-ferrous metals (aluminum, copper, brass, etc.), clean with KBS Klean at a dilution rate of **25 parts hot water to 1 part KBS Klean** (4% strength) with the use of a very soft non-abrasive cleaning pad. Rinse the KBS Klean solution immediately making sure you do not let it sit on the surface and dry in a way that minimizes any water stains.

#### CLEAR COATING WOOD:

Wood surfaces should be smooth and dry with the wood having a low moisture content. All existing failed coatings should be removed, sand smooth and remove dust. Thin initial coat of (non-aerosol) DiamondFinish Clear 50% with KBS #1 Thinner and apply a single covering coat to seal the wood. Allow to cure (24 hours). The wood will generally need to be sanded smooth again as DiamondFinish Clear will tend to raise the wood grain with the first coat. Sand smooth with fine grade of sand paper (280-320). Apply at **MINIMUM** an additional thin covering coat for general applications and a **MINIMUM** of 3 thin covering coats for marine and industrial applications.

#### CLEAR COATING FIBERGLASS:

Clean the surface with KBS Klean diluted 10 parts warm water to 1 part KBS Klean. Scuff with 600-1200 grit sandpaper and repeat cleaning process. Rinse & allow to thoroughly dry.

#### PREPARING FOR APPLICATION:

**ALWAYS USE PROTECTIVE GLOVES AND EYE WEAR.**

**NOTE:** Solvent wipes and tack cloths leave behind a residue which cause surface tension when applying DiamondFinish Clear and should NEVER be used when prepping a surface for DiamondFinish Clear.

Ideal application temperatures are 50-82°F (15-28°C). Use only in moderate to dry atmospheric conditions. Avoid rainy or high heat/humidity conditions.

Because most of our coatings are shipped at some point, there is a chance that the paint in the can might get between the can and the lid which can make getting the lid off more difficult than it might be with an ordinary paint. The main resin in DiamondFinish Clear is an adhesive. If you have a plastic ring on the can lid, please remove it. It is best to use a paint can opener which has a curved or "L" shape on the end. Flat head screwdrivers are not ideal as they tend to warp the lid as you pry the lid open. Use the paint can opener to gently lift the lid in a section and then rotate the can 10 degrees and lift gently and repeat until you have gone all around the can. Go around the can once again this time lifting the lid a little more. Repeat until the lid comes off. Do NOT lift the lid in one section only as this will warp the lid and the compression seal that the lid provides, and this can sometimes make it difficult to remove the lid.

**STIR WELL BEFORE EACH USE!** Before each use, stir DiamondFinish Clear gently and thoroughly. Proper stirring is very important for the best uniform sheen and finish. Effective stirring includes repeatedly touching bottom of can and lifting to disperse any settled resins or additives. Avoid violent or excessive shaking motions which produce air bubbles that will adversely affect the finish. Do not substitute shaking for stirring. For the best end results, continue to stir often during the course of use.

**DO NOT PAINT OUT OF CAN!** Do not shake can. Dispense a working amount of DiamondFinish Clear into a separate container (steel or glass is best) and seal original can immediately. Keep can groove free of paint by using a scoop or **KBS Paint Spout**. Use plastic wrap between the lid and the top of the can to stop metal to metal contact as DiamondFinish Clear can permanently seal the lid. Unused paint should NEVER be put back into the can as it will shorten can shelf life and cause pressure build-up possibly popping the lid. If there is any trouble resealing the can lid tightly, transfer and store DiamondFinish Clear in a proportionally sized clean glass jar or new paint can. Always store in a cool dry place.

**NOTE:** It is best practice never to mix DiamondFinish Clear from a can that has been used before with a new can of DiamondFinish Clear. The previously used can of DiamondFinish Clear can contain moisture that it has picked up from the air and that can diminish the pot life of the new can of DiamondFinish Clear.

#### APPLYING DIAMOND FINISH CLEAR (Non-Aerosol):

**ALWAYS WORK IN A WELL VENTILATED AREA.** Apply DiamondFinish Clear to clean and dry prepared surfaces using a bristle brush, foam brush, roller, or spray equipment. DiamondFinish Clear has superior self-leveling characteristics. Brush marks will flow out nicely. When brushing, apply covering coats, AVOID PUDDLING OR POOLING. Always do a test area first before doing the actual area.

**BRUSHING:** When brushing DiamondFinish Clear, apply thin, covering coats and do not overwork the brush as this can cause the DiamondFinish Clear to cure too quickly possibly leaving visible brush marks. It is best to brush an area with

DiamondFinish Clear and move on immediately versus brushing an area over and over again. If you brush over an area over and over again forcing the solvents out, you run the risk of the brush marks not flowing out as well they are designed to flow out. Thinning is not generally required if brushing but if you need to help flow out, you can thin/reduce roughly 10%.

**ROLLING:** A low nap roller cover works best. Most customers use a mohair roller cover. When rolling DiamondFinish Clear, apply thin, covering coats and do not overwork the roller as this can cause the DiamondFinish Clear to cure too quickly possibly leaving visible roller marks. It is best to roll an area with DiamondFinish Clear and move on immediately versus rolling an area over and over again. If you roll over an area over and over again forcing the solvents out, you run the risk of the roller marks not flowing out as well they are designed to flow out. When rolling, you can thin/reduce roughly 10-20% to help the DiamondFinish Clear flow out.

**SPRAYING:** When spraying, ALWAYS wear an AIR SUPPLIED RESPIRATOR or NIOSH/MSHA approved organic vapor particulate respirator and EYE PROTECTION. When spraying, thin/reduce DiamondFinish Clear with KBS #1 Thinner or Xylene ONLY and 10%-15% is normally adequate. DiamondFinish Clear can be thinned up to 30%.

<b>Conventional Electrostatic:</b>	Air Pressure: 40-60 psi	Fluid Pressure: 15-20 psi	Cap: Medium Visc. Tip: 1.0-1.6mm
<b>Conventional Spray:</b>	Air Pressure: 35-55 psi	Fluid Pressure: 15-20 psi	Cap: Medium Visc. Tip: 1.0-1.6mm
<b>HVLP Spray:</b>	Air Pressure: 25-35 psi	Fluid Pressure: 25-35 psi	Cap: Medium Visc. Tip: 1.0-1.6mm
<b>Air Assisted Airless:</b>	Air Pressure: 15:1 ratio pump or larger @ 80-100 psi	Atomizing Air: Adjust as needed	Cap: Medium Visc. Tip: 0.09 - 0.13"
<b>Airless:</b>	Pressure: 1500 psi min.	Tip: 0.09 - 0.11"	

**HOW MANY COATS?:** Always apply a MINIMUM of 2 covering coats. Apply a thin covering initial coat followed by a thin, covering coat (2 mils dry film thickness each) for general applications. For marine type applications, applications where the surface is consistently exposed to water, industrial applications, or applications where bare metal rust protection is key, apply a MINIMUM of 3 thin covering coats (2 mils dry film thickness each).

**RE-COATING:** Re-coating can be done once the first or consecutive coat is dry-to-touch and does not leave a fingerprint which is typically within 2-4 hours depending on temperature and humidity. If spraying, clean your spray gun immediately after using DiamondFinish Clear. FOR BEST END RESULTS, always apply coats consecutively within 8 hours of each coat curing. Full cure is usually achieved in 7 days.

**CUT AND BUFF/POLISH:** When needed, DiamondFinish Clear can be cut and polished/buffed to remove any imperfections, runs, brush marks, etc. after 24 hours under normal environmental conditions. You will cut and buff/polish DiamondFinish Clear the same way you would an automotive clear coat.

**SPECIAL TIP:** Do not apply DiamondFinish Clear in wet or high humidity conditions to avoid rapid curing. Do not apply DiamondFinish Clear too heavy or too quickly between coats. In each of these instances, surface bubbling may result as released carbon dioxide becomes entrapped beneath the top surface layer of paint.

**REMEMBER: ALWAYS APPLY THIN, COVERING COATS!**

**NOTE ON DIAMONDFINISH CLEAR STORAGE:** If storing for a period of time, hold can lid and plastic wrap (described above) closely above can and spray KBS Paint Saver towards side of the can to avoid splashing. Spray KBS Paint Saver two seconds for quarts or less and four seconds for gallons. KBS Paint Saver prevents oxygen and moisture damage and extends storage times of DiamondFinish Clear.

## APPLYING DIAMONDFINISH CLEAR (Aerosol):

FOR BEST END RESULTS. Apply DiamondFinish Clear to prepared surfaces as described above. ALWAYS WEAR PROTECTIVE GLOVES AND EYE WEAR when using DiamondFinish Clear. Always use NIOSH/MSHA approved air supplied respirator.

For best results, spray at room temperature 50° to 90°F (10° to 32°C). Use only in moderate to dry atmospheric conditions (i.e. 70% humidity or lower). Shake can for at least one minute after listening for rattle or mixing ball. During application, shake intermittently for approximately 10 seconds at 1 to 2 minute intervals. Press valve all the way down. Do not extend finger beyond the valve. Hold container about 8 to 10 inches from surface to be sprayed. Do not cover with continuous spray. Move back and forth, releasing spray-head after stroke. Overlap each stroke. If clogging develops, turn spray-head 1/4 turn or remove and clean spray-head. Do not stick pin or other objects in to can opening. With spray-head pointed away from you, reinsert spray-head with gentle twisting motion.

**IF AEROSOL CLEAR COATING OVER ANOTHER AEROSOL PAINT:** It is always best to wait at least 3 days and then first test the cured aerosol paint by scuffing it a bit with sandpaper. If the aerosol paint gums up, wait longer before applying DiamondFinish Clear Aerosol. As always, test a small section for wrinkling.

**IMPORTANT:** Apply thin coats rather than heavy coats. If paint runs or sags, paint is being applied too heavily or paint can is too close to surface. Apply one or two thin covering coats for general automotive applications. For marine or industrial applications, apply a minimum of 2 - 3 thin covering coats. Re-coating can be done once first or consecutive coat is dry-to-touch. For best results, always apply coats consecutively within 24 hours of each coat curing. Average re-coat cure times are 1-2 hours depending on humidity levels. Full cure is usually achieved within 48 hours.

**NOTE:** Flow and gloss are increased with multiple coats. For maximum gloss, apply 4 passes, wait 10-15 minutes, then apply 4 more passes.

To clear spray-head for future use, turn can upside down and spray for 3 seconds.

## CLEAN UP:

Use KBS #1 Thinner or lacquer thinner for immediate clean up including your spray gun **IMPORTANT:** Remember DiamondFinish Clear must be cleaned up before it dries. It cannot be removed by any solvent once cured. Always wear protective gloves to avoid skin contact and temporary staining. If skin contact accidentally occurs, immediately remove with #1 Thinner or lacquer thinner followed by soap and water. If DiamondFinish Clear should stain your skin, only the course of time will remove it.

## DIAMONDFINISH CLEAR - TIPS & GUIDES:

- If the surface to clear coated will be consistently exposed to sunlight, we do not recommend applying DiamondFinish Clear over RustSeal (which can chalk or fade when consistently exposed to sunlight). DiamondFinish Clear is 100% UV stable but like most clear coats, DiamondFinish Clear does not block UV rays long term so it is important to apply DiamondFinish Clear over UV stable base coats when the surface will be consistently exposed to sunlight.
- If painting in conditions of high temperature and/or humidity, thin/reduce DiamondFinish Clear more than normal to avoid gassing/micro-bubbling.
- Do not use UV or bake lights to cure DiamondFinish Clear as this can actually slow down the cure.
- Under normal circumstances, you can handle after 1 day and a full cure is reached in 7 days.
- In spray booths, use low air flow and moderate temperatures for curing.

Sprayable VOC's (Using KBS #1 Thinner) (Non-Aerosol): <250g/l

Please remember these instructions are general guidelines only and do not cover every application and environment. If you remain unsure as how to proceed, refer to product instruction sheet, our website:

**KBS-Coatings.com**, or call for technical advice at **1-219-263-0073**.

Please follow all warning and caution notices. See SDS for additional information.

## PROUDLY MADE IN THE USA.

Information contained herein is to our knowledge true and accurate, but all recommendations or suggestions are made without guarantee. Since application lies outside our control, we cannot accept any liability for the results. User shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection therewith.

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