

Black Diamond Series

Low-VOC Urethane Basecoat



TECHNICAL DATA SHEET

Kirker's all-new Black Diamond Low-VOC Urethane Basecoat is a premium automotive refinish system that meets even the strictest VOC limitations. This fast-drying high-solids color system combines the ease-of-use of conventional basecoats with the superior durability of urethane technology and the reduced environmental impact of today's waterborne basecoat systems.

Low-VOC Basecoat (LVB) colors feature a unique hybrid formulation that provides quick coverage with exceptional metallic control, excellent reparability and seriously fast dry times. Superior flowout leaves a smooth film surface. This unique high-solids resin blend also provides exceptional flexibility and chip resistance. Ideal for complete repaints, custom refinish and even repair work.

COATING TYPE:

Urethane Basecoat

PRODUCT CODE:

LVB (prefix)

ACTIVATORS:

LVA-365 (Fast / 60-75°F)

LVA-375 (Medium / 70 – 85°F)

LVA-385 (Slow / 80-95°F)

LVA-395 (Super slow / Above 90°F)

REDUCERS:

Additional Reduction not required

LVR-565 Low-VOC Reducer – Fast (Low temp)

LVR-575 Low-VOC Reducer – Medium (Mid temp)

LVR-585 Low-VOC Reducer – Slow (High temp)

LVR-595 Low-VOC Reducer – Super Slow (Very high temp)



PHYSICAL PROPERTIES

Appearance:	Paint, appearance varies by color
Package Measure:	1 U.S. Gallon (3.785 liters)
Actual VOC (as supplied):	No more than 208.5 g/liter (1.74 lbs/gal)
Regulatory VOC (as supplied)	No more than 424.4 g/liter (3.54 lbs/gal)
Actual VOC (as applied):	No more than 223.4 g/liter (1.86 lbs/gal)
Regulatory VOC (as applied):	No more than 395.4 g/liter (3.30 lbs/gal)
Weight per gallon:	Varies by color
Material density (as supplied):	Varies by color
Material density (as applied):	Varies by color
Wt %, volatiles, water, exempts	Varies by color
Volume %, water /exempts (RTS)	Varies by color
Solids content (by volume):	Varies by color
Solids content (by weight):	Varies by color
Dry mils per coat:	Approximately 0.6

SUITABLE SUBSTATES

Black Diamond Low-VOC 2K Primer Surfacer (UP751, UP752)
PERFECT PRIME 2K Primer Surfacer (UP731, UP732)
RAPID PRIME 2K Primer Surfacer (UP711, UP712)
ENDURO PRIME Epoxy Primer (EP611 / EP612)

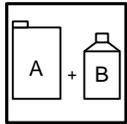
Properly prepared, fully cured OE finishes and other catalyzed automotive-grade primer systems may also be suitable.



SURFACE PREP:

Prior to use, remove all traces of wax, grease, silicone, oil and other contaminants with detergent wash, followed with a solvent wash (such as Kirker's 650 Wax & Grease Remover). Sand existing finish with 400-600 grit. Re-clean with final wash cleaner (such as Kirker's 600 Surface Wash).

Be sure to mask all adjacent panels to prevent dry overspray.



MIXING:

After shaking can, thoroughly mix color with a stir stick to ensure material is uniform throughout.

Mix Low-VOC Basecoat at a 4:1 ratio by volume: Four (4) parts color to one (1) part Activator. According to the size of the area to be painted, air flow, temperature, humidity and other environmental factors at the time of application, use the appropriate Activator (LVA-365, LVA-375, LVA-385, LVA-395). Reference the selection chart below for more information.

It will be useful in most situations to add approximately 10%-20% LVR reducer to mix until desired spray viscosity is attained. Use the correct reducer according to the size of the area to be painted, air flow, temperature, humidity and other environmental factors at the time of application. Reference the selection chart below for more information.

Temp range	60° - 75° F	70° - 85° F	80° - 95°F	Above 90°F
Speed	Fast/Small area	Medium/Small area	Slow/Large area	Super Slow/Large area
Activator	LVA-365	LVA-375	LVA-385	LVA-395
Reducer	LVR-565	LVR-575	LVR-585	LVR-595

** For larger areas, always use a slower combination of activators and reducers than temperature would dictate.*

Kirker's standard ULTRA-GLO Urethane-Grade Reducers (UR-8065/UR-9065, UR-8075/UR-9075, UR-8085/UR-9085, UR-8095/UR-9095) may be used in place of the Low-VOC Reducers above however doing so will increase the ready-to-spray VOC, potentially rendering the mixed system non-compliant. Kirker recommends only persons with knowledge of current local VOC regulations and the ability to calculate total system VOC attempt to use these reducers.

LVB colors may be mixed with other LVB colors to achieve custom variations.

Caution: Mix only as much material as you will need to complete the immediate job.



LVB Color	4 oz.	12 oz.	24 oz.	36 oz.
LVA Activator	1 oz.	3 oz.	6 oz.	9 oz.
LVR Reducer	Up to 1 oz.	Up to 3 oz.	Up to 6 oz.	Up to 9 oz.
TOTAL MIXTURE	6 oz.	18 oz.	36 oz.	54 oz.



POT LIFE:

Approximately two hours at 70°F. Caution: Pot life of mixed components is significantly shorter at elevated temperatures and in humid conditions. These environmental factors also may affect flow and leveling during the application process.



GUN SETTINGS:

<u>GUN TYPE</u>	<u>TIP SIZE</u>	<u>AIR PRESSURE</u>
HVLP	1.2 mm – 1.4 mm	8-10 psi (at the air cap)
Conventional Gravity Feed:	1.2 mm – 1.5 mm	40-50 psi
Conventional Siphon Feed:	1.3 mm – 1.6 mm	40-50 psi

Always refer to gun manufacturer's recommendations for additional details on suggested tip size, air pressure and other adjustments.



APPLICATION:

Apply LVB color in two (2) full medium wet coats with a consistent 50% overlap pattern. Allow five (5) to ten (10) minutes for each coat to flash before reapplying color. Flash time will increase with the number of coats applied.

Most LVB colors are formulated to cover in two (2) coats. If required to achieve coverage and/or desired build, an additional coat may be applied after sufficient flash.

Only if required, apply a drop coat to help set an even, mottle-free finish in metallic and pearl colors. This light coat should be applied immediately following the final wet coat. For best results, decrease air pressure slightly, hold the gun further back from the panel and mist basecoat onto wet film in even passes until finish appears uniform.



DRY TIMES:

	<u>AIR DRY</u>
Dust free:	10-20 minutes
Tack free:	20 minutes
Light sand:	15-25 minutes
Wet sand:	30 minutes
Tape:	45-90 minutes
Stripe:	Next day

Air-dry times may vary slightly depending on activator and reducer selection, shop temperatures, humidity, airflow and total film thickness.

All dry times listed are approximate, at 70°F.



CLEARCOATING / RECOATING:

LVB color may be topcoated with clear or another LVB color after 20-30 minutes. Wait longer to recoat if a) ambient shop temperatures are lower than normal b) you used a slower activator than called for c) humidity is higher than normal c) film build is excessive or d) air flow is less than ideal. A premature recoat may cause wrinkling or some other adverse reaction, as well as potential refloating of metallic and/or pearl pigments.

MAXIMUM RECOAT

If more than 18 hours have passed (at 70°F), surface must be abraded with 400-600 grit and basecoat must be reapplied before topcoating to avoid potential delamination.

RECOMMENDED CLEARCOATS

LVB colors are compatible with any of Kirker's urethane clearcoats (EC350, EC300, EC200, EC100, V2010, UCC500). In areas such as California, or the Northeast "OTC" states, where current and/or pending VOC regulations require the use of clears limited to 2.1 lbs/gallon or less, then the Black Diamond Low-VOC Multi-use Clearcoat (EC350) is the only compliant option.



CLEANUP:

Close all containers tightly after each use. Clean gun and spray equipment with gun wash or other appropriate solvent products immediately after application to prevent damage.

Shelf life of LVA-365, LVA-375, LVA-385 and LVA-395 Activators is limited once cans have been opened. These products are extremely susceptible to oxygenation and exposure to moisture. Therefore, containers should be closed tightly, with a clean seal, as quickly as possible. Also, activators should be stored at a consistent temperature to prevent the formation of condensation inside the can.



HEALTH / SAFETY PRECAUTIONS:

THIS PRODUCT IS INTENDED FOR USE BY PROFESSIONALS ONLY.

USE THIS PRODUCT ONLY WITH ADEQUATE VENTILATION: Wear appropriate, properly fitted fresh-air-supplied NIOSH/MSHA-approved respirator (TC-19C or equivalent) as directed by the manufacturer. Protect hands with impervious nitrile gloves. Always wear eye and face protection. Individuals with lung or breathing problems should neither use nor be exposed to this product, its vapors or spray mist. READ ALL WARNINGS ON ALL LABELS BEFORE USING.

This product is designed to be mixed with other components. Mixture will have hazards of all components. Before opening the packages, read all warning labels. Follow all precautions. See Material Safety Data Sheet for additional health and safety information.

WARRANTY:

All recommendations for the use of Kirker products are based on tests and experience believed to be reliable. It is the responsibility of the user to determine the suitability of this product for its intended use. Since the methods of use, conditions of application, and the application itself are beyond the manufacturer's and sellers' control, product warranty is restricted to replacement of material only. No other warranty, written or oral, is expressed or implied.

FOR ADDITIONAL INFORMATION:



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