

# RustSeal

## Information and Instructions

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 toll-free for technical assistance.

ALWAYS WEAR PROTECTIVE GLOVES AND SAFETY GLASSES. ALWAYS WORK IN A WELL-VENTILATED AREA. Please heed all warning and caution notices.

### **PRODUCT DESCRIPTION:**

KBS Coatings 3-STEP SYSTEM of RustSeal (a rust preventive coating), AquaKlean (an industrial strength water-based cleaner / degreaser) and RustBlast (a powerful rust remover / metal etch) is the most technologically advanced metal protection system in the world today! RustSeal cures to a rock hard yet flexible watertight seal that won't crack, blister or peel and endures the harshest weather conditions including moderate resistance to UV rays. Because RustSeal is moisture-cured, this superior coating is made even stronger by continued exposure to moisture. RustSeal is also highly resistant to some of the most aggressive chemicals such as acids, alkalis, salts, abrasive materials, fertilizers, coal dusts, solvents, oils, and other refined petroleum products. RustSeal is the first and only moisture-cured high performance coating offered in the widest range (EIGHT) of rust preventive paint color options. RustSeal is lead-free and has low VOCs.



### **Technical Information and Specifications**

**Type of coating:** Single Component Moisture Curing Polymeric Isocyanate.

**Colors:** Gloss Black, Satin Black, Off-White, Clear, Grey, Silver, Green, Galvanized Steel, Iron Red, Blue and Yellow.

**Gloss:** 80-100% depending on color.

**Solids:** 72-76% Depending on color.

**Flash Point:** 40°C

**Viscosity:** at 25°C 320cps

**VOC:** Not more than 300g/l

**Minimum Recommended Dry film thickness:** 75-125um this is normal achieved in 2-3 coats.

**Coverage:** On porous surfaces like rust and corrosion approximately 9.5m<sup>2</sup> per litre at 50um thickness. Coverage will vary depending on surface profile, application method and film thickness.

**Average Dry Times at 25°C at 50% humidity:** Touch dry 1-2 hours. Tack free 2-4 hours. Full cure after 24 hrs.

**Pot life:** Pot life will depend on local humidity conditions and the length of time the coating is exposed to moisture. Though providing the can is resealed well and only opened for limited periods at a time the average life is approximately 6-12 months.

**Solvent:** Use only KBS #1 Thinner. The use of other solvents can cause premature coating failure and or lost of adhesion.

**Recoat times:** 2-36 hrs depending on humidity.

**Compatibility with other topcoats:** RustSeal can be topcoated with any type of topcoat and primer systems including but not limited to urethanes, epoxies, enamels, fibreglass resins, water based coatings, lacquers and two component automotive refinishing products.

**General appearance and Characteristics:** Smooth ceramic like finish with very high levels of flexibility and toughness. Strong resistance to impact, high temperature, abrasion and common aggressive chemicals including; Acids, Alkalis, Salts, Minerals, Solvents, Fuels and Hydraulic fluids.

**Storage Requirements:** Store in cool dry conditions away from direct sun light 5-35°C

**Container Availability:** 250mls 500mls, 1 Litre, 4 Litre, 20 Litre Drum 200L

**Performance Characteristics:** Salt water resistance ASTM B-117 at 35°C at 5% salt water for 2000 hrs: No noticeable change.

**Results of contact spot testing of RustSeal with various common materials.**

RustSeal applied to steel Q panels at 100um film thickness and placed in continuous contact with the following materials for 168 Hr (7days).

### **IMPORTANCE OF SURFACE PREPARATION:**

Despite what others may lead you to believe, it does not matter how good the rust prevention product is if the surface is not prepared properly. Corrosion and organic contamination will block and inhibit any coating from deeply penetrating and permanently adhering to the surface. Even new metals have protective surface oils applied that will interfere with adhesion. Simply put...the cleaner the surface using AquaKlean, the more effective RustBlast will work and the deeper RustSeal will penetrate into the pores and permanently seal and protect the surface.

FOR BEST END RESULTS, apply RustSeal to clean, dry, bare metals with good porous surface profiles such as treated rust, sandblasted, or other abraded surfaces to which it can "bite" into. Newly sandblasted metal surfaces usually require little preparation other than blowing off loose dust and are the ideal choice for DIRECT RustSeal applications. Please note that media or bead-blasted surfaces do not provide adequate abrasion for RustSeal adhesion and do require an application of RustBlast for further metal etching. For all other applications, follow the KBS 3-Step System.

## **STEP #1 - AQUAKLEAN DIRECTIONS:**

After removal of any loose flakey rust by sanding using 320 grit sandpaper, wire brushing and/or wire wheeling to achieve a solid surface profile, it is necessary to remove all surface contamination. Slight residues of grease, oil or even fingerprints can ruin any good paint job. Avoid using any solvent based cleaners which leave residues. Begin by diluting the AquaKlean concentrate with water. The warmer the water, the more effective and powerful the cleaning action of AquaKlean will be. Effective dilution rates will vary according to the type and degree of contaminants as well as surface materials. AquaKlean may be used in power washing equipment. For general purpose cleaning, apply liberally and scrub surface for 5-10 minutes. For heavy-duty cleaning, extended soaking times up to 24 hours or more may be necessary. Use a bristle brush or scouring pad to expedite the cleaning of heavily soiled surfaces. Retreat surface as necessary until clean. Do not allow AquaKlean to dry before rinsing thoroughly with water. After rinsing, let dry. NOTE: PAGE:

Metal surfaces cleaned with AquaKlean should always be treated with RustBlast before painting to ensure proper adhesion. For all alloys and non-ferrous metals, AquaKlean application times and dilution rates should be kept to a minimum due to the wide variations in these materials. For maximum performance, follow with RustBlast to remove surface rust, etch the metal, and leave a zinc phosphate coating (white powder residue) for superior RustSeal adhesion. For all new, smooth or shiny metal surfaces, we recommend a light scuffing with 400 grit sandpaper followed by AquaKlean and RustBlast systems. For previously painted surfaces, remove all paint via chemical stripping followed by AquaKlean and RustBlast systems. If unable to remove any or all paint from metal surfaces, lightly scuff with 400 grit sandpaper followed by AquaKlean. NOTE: If RustSeal is applied over an existing painted coating and not bare metal, it may not permanently seal rust but it will provide a durable, moisture-resistant coating.

## **STEP #2 - RUSTBLAST DIRECTIONS:**

Ideal application temp range is 13-28°C. FOR BEST END RESULTS, remember the surface to be treated should be free of dirt, oil, grease and other contaminants as the cleaner the surface, the more effective RustBlast will work. Be sure to have scraped off any loose rust, mill scale, paint, etc. and cleaned the surface with AquaKlean, a water-based cleaner/degreaser, prior to using RustBlast. Liberally apply RustBlast FULL-STRENGTH to a CLEAN DRY SURFACE using a spray bottle, brush, roller, or backpack sprayer for larger applications. Re-apply often to continually keep the surface wet for a minimum of 10 minutes for smooth or lightly rusted surfaces, 20-40 minutes for moderately rusted surfaces and 1-2 hours for heavily rusted or corroded surfaces. Use a scouring pad as needed. Do not allow RustBlast to dry on surface before rinsing. After treatment, rinse thoroughly with water and then allow surface to dry completely. For removal of light corrosion or etching of non-ferrous metals (such as aluminum, brass, copper), prepare surface as above and apply RustBlast for 10-20 minutes then rinse thoroughly with water and then allow surface to dry completely. NOTE: It is not necessary to remove every last bit of rust before applying RustSeal. RustSeal is very capable of bonding to & permanently sealing any remaining flash rust or corrosion. After treatment with RustBlast, a slight powder residue may appear. This is a zinc phosphate coating advantageous for RustSeal adhesion. Items treated with RustBlast can remain uncoated for up to 30 days depending on environmental conditions.

## **STEP #3 - RUSTSEAL APPLICATION:**

Ideal RustSeal application temp range is 13°-28°C. Use only in moderate to dry atmospheric conditions. AVOID applying RustSeal in wet or extreme humid conditions when it is difficult to keep the metal surface dry. Damp surfaces may produce bubbling and improper adhesion. Also brush marks may not level out if RustSeal cures too quickly. Always work in a well ventilated area and wear protective gloves to avoid skin contact and temporary staining. Remember RustSeal must be cleaned up before it dries as it cannot be removed by any solvent once cured.

**DO NOT SHAKE CAN!** Shaking will introduce air bubbles that will affect effective sealing & final finish.

Stir contents thoroughly for at least 3-5 minutes. Touch bottom & lift to disperse any settled pigment. Do not whip. Stir often during the course of painting for the best uniform sheen & finish. Thinning may be required for spray applications. Reduce 5%-10% if needed using KBS #1 thinner which is a slow evaporating solvent. Do not use lacquer thinner for thinning.

**DO NOT PAINT OUT OF CAN!** It is recommended to use quality brushes but at disposable prices as cleaning them afterwards is difficult. After a good stir, dispense a working amount of RustSeal into a separate container (steel or glass is best) and seal original can immediately. Unused paint should NEVER be put back into the can as it will shorten its shelf life and cause pressure build-up possibly popping the lid. 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 RustSeal can permanently seal the lid. If there is any trouble resealing the can lid tightly, transfer and store RustSeal in a proportionally sized clean glass jar. Always store in a cool dry place.

Apply RustSeal to clean & dry prepared surfaces using a bristle brush, foam brush, roller, or spray equipment. RustSeal has superior self-leveling. Brush marks will flow out. IF SPRAYING, ALWAYS WEAR AN AIR SUPPLIED RESPIRATOR: NIOSH/MSHA approved organic vapor particulate respirator. Spray pressure of 35-45 psi, 250-330kpa for siphon/pot guns and 25-35psi, 170-250kpa for gravity/top container guns. Thinning is not generally required but if needed 5%-10% is normally adequate. Use KBS #1 Thinner only. Remember to clean your spray gun immediately after using RustSeal.

Always apply a MINIMUM of 2 thin covering coats (50um each) for general applications. For marine or industrial applications, apply a MINIMUM of 3 thin covering coats (50um each). Use a KBS Pre-Valve Sprayer for any hard to reach areas. Re-coating can be done once the first or consecutive coat is dry-to-touch and does not leave a fingerprint. FOR BEST END RESULTS, always apply coats consecutively within 6 hours of each coat curing. Average cure times are 2-4 hours, depending on humidity levels. NOTE: Do not apply RustSeal in wet or humid conditions to avoid rapid curing. Also do not apply RustSeal too thick or too quick between coats. In

each of these instances, surface bubbling may result as released carbon dioxide becomes entrapped beneath the top surface layer of paint.

CONT.....RUSTSEAL PAGE: 3/3

### ***(Optional) TOPCOATING RUSTSEAL:***

*In areas not exposed to direct UV light like the underside of a car, RustSeal will seal as well as serve as a great looking final finish. Although RustSeal exhibits moderate UV stability, repeated exposure to direct UV light will cause cosmetic changes to its application like discoloring or dulling but its guaranteed rust protection will remain intact and not be compromised. To protect against cosmetic changes, it is advised to topcoat RustSeal with any opaque paint system. Please note that a clear topcoat will not provide UV protection. KBS BlackTop is a high performance protective coating like RustSeal and is an ideal topcoat for all UV exposed Chassis parts. When BlackTop is used as a topcoat over RustSeal, it produces an incredibly tough and professional looking finish. To topcoat freshly painted RustSeal surfaces (less than 4 days old), apply a single coat of BlackTop as no other prep is required. For older applications, lightly sand with 320 grit sandpaper or spray with KBS Fusion Self-Etching Primer to promote good adhesion between the two coatings.*

### ***CLEAN UP:***

*Use KBS #1 Thinner for immediate clean up including your spray gun. IMPORTANT: Remember RustSeal 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 RustSeal should stain your skin, only the course of time will remove it.*