



TECHNICAL DATA SHEET

Crown Shield

PRODUCT DESCRIPTION

Crown Shield has essentially zero odor. The ideal applications are hospitals, restaurants, kennels, veterinary facilities, health care facilities, and garages etc. It is a two component, extremely chemical resistant, and non-yellowing aliphatic Crown Shield. It features high gloss, high build, and a cure time of 4 to 6 hours, and generally return to service in 24 hours. It can be installed in extremely high or low temperatures. Crown Shield is the ideal product when extremely low odor, durability and UV stable system are required.

AVAILABLE COLORS

- Clear
- Light Gray
- Medium Gray
- Dark Gray
- White
- Black
- Tan
- Beige
- Tile Red
- Safety Red
- Safety Blue
- Safety Green
- Safety Yellow
- Mocha

APPLICATIONS

- Pharmaceutical
- Food Prep/Kitchens
- Garage Floors
- Restrooms
- Manufacturing plants
- Aisle ways
- Clean Rooms
- Auto showrooms
- Schools
- Laboratories
- Basements
- Kennels
- Veterinary facilities
- Locker rooms
- Ramps
- Health Care facilities
- Loading docks
- Car wash facilities

ADVANTAGES

- High Gloss (just like glass) & Build
- 4x more abrasion resistant than epoxy
- Non-yellowing
- Chemical, scratch, abrasion resistant
- Easy mixing ratio (1:1)
- Solvent FREE
- Cure at temperatures just above Freezing
- Does not support growth of bacteria or fungus.

PRODUCT DATA

Volumetric Ratio	1 to 1
Solids	85%
Coverage	varies on type of surface you're coating. Contact Support
Application	35°-100°F
Temperature Thinning	Not Required
Pot Life	5-7 min.
Working Time on Floor	15-20 min.
Cure Time	10 hrs (walking) 24 hrs (light traffic)
Critical Re-Coat Time	NONE must screen
(After full cure surface MUST be sanded prior to next coat.)	
USDA Food & Beverage	Meets Req.

TYPICAL PROPERTIES

PROPERTY

Appearance	Clear Liquid
Total Solids(% by weight)	85
Total Solids (% by volume)	85
Surface Tension, Dynes/cm	40
Viscosity (Brookfield LVF), cps @ 25° C	600
Density (lbs/gallon)	8.32
Specific Gravity	1.0
Flash Point (C Pensky-Martens closed cup)	<70°F
Freeze/Thaw Stability	N/A
Thermal Stability (28 days @ 52° C)	No Effect
Mechanical Stability	Good
VOC (g/l)	0
VOC (by Weight)	0
Tg (C)	66
Tensile Strength, psi	7000
Elongation	8%

PACKAGING

2 GALLON KITS

PART A	1 GAL
PART B	1 GAL

1.5 GALLON KITS

PART A	0.75 GAL
PART B	0.75 GAL

10 GALLON KITS

PART A	5 GAL
PART B	5 GAL



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CONCRETE PREPERATION

Before coating is applied, concrete must be:

- Dry – No wet areas
- Clean – Contaminants removed
- Profiled – Surface must be diamond ground to a CSP (Concrete Surface Profile) rating of "2"... Roughly the feel of 100 Grit Sandpaper.
- Sound – All cracks and spalled areas repaired

Note: Mechanical preparation is the preferred method of preparing concrete for coating application. Shot-blasting, diamond grinding, scarifying and scab-bling are all acceptable methods.

REPAIR CRACKS

Voids, cracks and imperfections will be seen in finished coating if the concrete is not patched correctly. Crack Repair and/ or Rapid Mender to fill cracks and imperfections. After the materials are cured, diamond grind patch. If another patching material is used, contact a Royal Epoxy for a compatible and approved alternative.

MOISTURE VAPOR EMISSIONS WARNING

All concrete floors without effective moisture vapor barrier are subject to possible moisture vapor transmission that may cause blistering and failure of the coating system. It is the applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine vapor emissions prior to applying any coating. Royal Epoxy can supply moisture remediation products MVB15 (MOISTURE VAPOR BARRIER) that are up to 15 lbs. Royal Epoxy, sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

MIXING

The ratio of Crown Shield is 1 Part A to 1 Part B by volume. Mix for 1 full minute using a slow-speed drill, scraping the bottom and sides of the mixing container. Mix only that amount which can be spread in 30 minutes.

FILM PROPERTIES

PHYSICAL PERFORMANCE PROPERTIES OF DRY FILM

All tests were conducted on 2.0 to 2.5 mil films, and air-dried for 7 days at room temperature

PROPERTY

PROPERTY	VALUE
Hardness (Pencil/Sword)	2h/70
Taber Abrasion (mg loss per 100 cycles, CS-17 wheel, 1000 load)	52
Impact Resistance (Direct/Reverse)	140/140 (lbs)
Crosshatch Adhesion (Untreated Cold Rolled Steel/Untreated Aluminium)	100%/100%

PROPERTY

PROPERTY	VALUE
Oxidation	No Effect
Loss of Gloss	Slight

PROPERTY

PROPERTY	VALUE
Brake Fluid	No Effect
Transmission Fluid	Slight Discoloration
Coolant	No Effect
Power Steering Fluid	Slight Discoloration
Gasoline	No Effect
Battery Acid	Damaged
MEK	<200 Double Rubs
Acetone	<200 Double Rubs
Formula 409	<200 Double Rubs

CLEAN UP

Crown Shield while in an un-reacted state, may be cleaned up with hot water and degreaser. Isopropyl alcohol or acetone may be needed once the resin begins hardening.

SPECIAL NOTE

NOTE: High Humidity will accelerate work time dramatically. Be cautious when applying on High Moisture Days.

WARNING! SLIP AND FALL PRECAUTIONS

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slipresistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Royal Epoxy recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Royal Epoxy or its sales agents will not be responsible for injury incurred in a slip and fall accident.

Handling Precautions

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. Avoid contact with skin. Some individuals may be allergic to epoxy resin. Protective gloves and clothing are recommended.

WARRANTY

Royal Epoxy products are warranted for one year after date of purchase. Please refer to the Limited Material warranty for additional clarification.



MADE IN USA