



BREAK-THROUGH!®

V51-410 Series

Architectural Coatings

GENERAL DESCRIPTION

A versatile, ultra-durable water-borne acrylic, *Break-Through!*, is formulated to bond to some of the most difficult substrates including fiberglass, ceramic tile, laminate, and many plastics. The interior/exterior satin finish offers very fast dry and outstanding early block resistance for increased productivity with less down time. *Break-Through!* provides hardness similar to or better than standard alkyds but maintains flexibility to endure extreme bends and deformation without cracking and peeling. *Break-Through!* is ideal for doors, windows, shelving, fixtures, trim, wood and concrete floors.

RECOMMENDED SUBSTRATES

Aluminum	Galvanized Steel
Ceramic Tile	Gypsum Wallboard-Drywall
Concrete	Interior Wood
Concrete/Masonry Block	Laminate
Ferrous Metal	Plaster
Fiberglass	Vinyl and Architectural Plastics

CONFORMANCE STANDARDS

VOC compliant in all regulated areas

PRODUCT INFORMATION

V51-410	White & Pastel Base
V51-420	Midtone Base*
V51-430	Deeptone Base*
V51-440	Ultra Deep Base*
V51-90	Wrought Iron Black
V51-V	Clear

*Must be tinted before use.

Refer to the appropriate color formula book, automatic tinting equipment, and/or computer color matching system for color formulas and tinting instructions.

FEATURES / BENEFITS

Features

Outstanding Early Block Resistance
Excellent Adhesion
Very Good Hardness
Very Quick Dry
Excellent Flow & Leveling
Flexible
Resistant to Household Chemicals

PRODUCT DATA

PRODUCT TYPE:	Water-Borne Acrylic
SHEEN:	Satin, 20-30 @60°
VOLUME SOLIDS*:	32% +/- 2%
WEIGHT SOLIDS*:	43% +/- 2%
WEIGHT/GALLON*:	9.9 lbs. (4.5 kg) +/- 0.2 lbs. (91 g)
VOC:	<50 g/L (0.4 lbs./gal.)

*Product data calculated on product V51-410.

COVERAGE: Approximately 300 to 350 sq. ft. (28 to 33 sq. meters) per U.S. gallon (3.78 L) on primed, smooth, nonporous surfaces.

Wet Film Thickness:	4.6 to 5.3 mils
Wet Microns:	117 to 135
Dry Film Thickness:	1.6 to 1.7 mils
Dry Microns:	41 to 43

Coverage figures do not include loss due to surface irregularities and porosity or material loss due to application method or mixing. Some colors, drastic color changes, or porous substrates may require more than one coat to achieve a uniform finish.

DRYING TIME: Dry time @ 77°F (25°C); 50% relative humidity.

To Touch:	15-20 minutes
To Handle	1 hour
To Recoat:	2 hours
For Foot Traffic	12 hours
For Forklift Traffic	24 hours
To Full Cure:	7 days

Allow 24 hours before normal use. Drying times listed may vary depending on temperature, humidity, film build, color, and air movement.

CLEANUP: Clean tools with warm, soapy water.

DISPOSAL: Contact your local environmental regulatory agency for guidance on disposal of unused product. Do not pour down a drain or storm sewer.

FLASH POINT: Over 200°F (93°C)

Benefits

Provides tack free film idea for doors, windows, cabinets, and shelving
Bonds to a wide variety of difficult substrates
Durability and hardness similar or better than conventional alkyds
Dry to touch in 15-20 minutes, reducing down time
Provides enamel with a smooth finish
Withstands bends with no cracking or peeling
Ideal for use in areas requiring frequent cleaning with mild household cleaners or light duty industrial cleaners

GENERAL SURFACE PREPARATION

Surface must be clean and dry. Remove all loose, peeling paint, dirt, mildew, grease, oil, chalk, rust, and any other surface contaminants. Blistering and peeling issues are commonly caused by moisture behind the paint film. Problems leading to excessive moisture in the substrate must be repaired prior to painting. Putty all nail holes and caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Plaster, concrete, and masonry surfaces must be completely dry, free of efflorescence, and allowed to cure for 30 days prior to painting. Repaired surfaces or lightly stained areas may require additional coats. Prime all bare wood, drywall, plaster, metal, and porous surfaces with the appropriate primer.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

ALUMINUM: This substrate may present potential adhesion problems. Any coating applied directly to aluminum should be spot applied, allowed to cure overnight, and then evaluated for adhesion. If adhesion is good, the application may proceed.

CERAMIC TILE: No primer needed; sanding or etching with phosphoric acid is necessary. Topcoat should be spot applied as directed, allowed to cure overnight, then evaluated for adhesion. If adhesion is good, the application may proceed.

CONCRETE: New concrete and masonry should cure for at least 30 days and preferably 90 days prior to priming and painting. The pH of the substrate must be less than 10 before priming with an alkali resistant primer. Painting glazed brick is not recommended due to potential adhesion problems.

CONCRETE/MASONRY BLOCK: Mortar should cure for at least 30 days and preferably 90 days prior to painting. Fill block with an appropriate block filler. Surfaces previously coated with water thinned cement-based paint must be prepared with extra care. If the material appears to be adhering tightly, a masonry sealer may be applied to seal the surface. Check adhesion by applying a piece of masking tape. If the sealer peels off and has loose particles, remove all chalking or crumbling material, re-seal and re-check adhesion.

FERROUS METAL: The surface must be cleaned thoroughly to remove any dust, rust, and surface contaminants, and then primed with a metal primer. No primer is required for interior applications.

FIBERGLASS: No primer needed; sanding or scuffing the surface is recommended. Primer and topcoat should be spot applied as directed, allowed to cure overnight, then evaluated for adhesion. If adhesion is good, the application may proceed.

GALVANIZED STEEL: Caution must be used when selecting coatings for use on all galvanized metal surfaces. These substrates may have a factory-applied stabilizer, which is used to prevent white rusting during storage and shipping. Such stabilizers must be removed by either brush blasting, sanding or chemical treatment prior to priming.

GYPSUM WALLBOARD-DRYWALL: Nails or screws should be countersunk, and they along with any indentations should be mudded flush with the surface, sanded smooth and cleaned to remove any dust, prior to priming and painting the substrate.

INTERIOR WOOD: Unpainted wood or wood in poor condition should be sanded smooth and wiped clean. Any knots or resinous areas must be primed before painting. Countersink all nails, putty flush with surface, then prime.

LAMINATE: No primer needed; sanding or scuffing the surface is recommended. Topcoat should be spot applied as directed, allowed to cure overnight, then evaluated for adhesion. If adhesion is good, the application may proceed.

PLASTER: Plaster, hardcoat, skim coat, or other alkaline surfaces should be allowed to cure for at least 30 days prior to priming with an alkali resistant primer.

VINYL AND ARCHITECTURAL PLASTICS: Vinyl and similar architectural plastics may present potential adhesion problems. A primer may be required to promote proper adhesion. Consult the manufacturer's guidelines prior to painting. Primer and Topcoat should be spot applied, allowed to cure overnight, then evaluated for adhesion. If adhesion is good, the application may proceed. Do not paint vinyl or plastic with a color darker than the original to prevent potential warping due to heat absorption.

RECOMMENDED PRIMERS

Aluminum	4020, 90-712
Ceramic Tile/Fiberglass/Laminate	Self-priming
Concrete	4-603XI, 17-921XI
Concrete/Masonry Block	6-7, 6-15XI
Ferrous Metal	4020, 90-712, 90-912
Galvanized Steel	4020, 90-712
Gypsum Wallboard-Drywall	6-2, 6-4, 9-900, 12-900XI
Interior Wood	6-2, 9-900, 12-900XI, 17-921XI
Plaster	4-603XI, 17-921XI
Vinyl and Architectural Plastics	Self-priming

LIMITATIONS OF USE

Apply only when air, surface, and product temperatures are between 50°F (10°C) and 90°F (32°C) and at least 5°F (3°C) above the dew point. It is important to maintain air and surface temperatures for 24 hours after application. Avoid painting in direct sunlight or on hot surfaces. Do not apply late in the day when dew and condensation are likely to form, or if rain is expected within 48 hours. Not recommended for exterior horizontal surfaces unless these surfaces can be protected from dew and rain for 7 days. Wait at least 7 days after painting before cleaning the surface with a non-abrasive, mild cleanser. Not recommended for polypropylene or polyethylene plastics, roofs, garage floors or concrete floors subject to hot tires, continuous water immersion environments, such as bathtubs, sinks, shower basins and pools. Not recommended for very flexible substrates subject to abuse; such as canvas, nylon rope or rubber. Do not use on large wood structures or the bodies of homes. **PROTECT FROM FREEZING.**

PACKAGING

1-Gallon (3.78 L)

APPLICATION INFORMATION

Stir thoroughly before using and occasionally when in use. When using more than one can of the same color, intermix to ensure color uniformity. USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN. Read all label and Safety Data Sheet (SDS) information prior to use. SDS are available through our web site or by calling 1-800-441-9695.

Application Equipment: Apply with a high-quality brush, roller, paint pad, or by spray equipment. During application, it is important to maintain a wet edge due to the quick dry of the product. Rinse brush with warm water periodically during extended brush application. Two coats are recommended for maximum durability.

Airless Spray: Pressure 1500 to 2000 psi; tip 0.009" to 0.013". Spray equipment must be handled with due care and in accordance with manufacturer's recommendation. High-pressure injection of coatings into the skin by airless equipment may cause serious injury.

Brush: Polyester/Nylon Brush

Roller (nap roller cover): 3/16" - 3/8"

Thinning: No thinning required for airless spray application. Reduce 5-10% (up to 12 oz. or 355 mL) with water per U.S. gallon (3.78 L) of paint for conventional spray, HVLP, and brush applications.

Permissible temperatures during application:

Material:	50 to 90°F	10 to 32°C
Ambient:	50 to 90°F	10 to 32°C
Substrate:	50 to 90°F	10 to 32°C

PRECAUTIONS

Provide fresh air ventilation during and after application and drying. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Use personal protective equipment as required. **Note: These warnings encompass the product series. Prior to use, read and follow product-specific MSDS and label information.** **FIRST AID:** If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting unless directed to do so by medical personnel. If in eyes, rinse with water for 15 minutes. Check for and remove any contact lenses. If on skin, rinse well with water. Wash with soap and water. Get medical attention if irritation develops. If inhaled, remove to fresh air. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician. Keep out of the reach of children. For workplace use, an MSDS is available from your retailer or by calling (412) 492-5555. EMERGENCY SPILL INFORMATION: (412) 434-4515 (U.S.).

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