BREAK-THROUGH!® V52-410 Series

Architectural Coatings

PPG Break-Through! Interior/Exterior Water-Borne Acrylic Satin

GENERAL DESCRIPTION

PPG Break-Through! is an ultra-durable waterborne acrylic enamel with excellent flow and leveling, outstanding early block resistance and very fast dry. It can be used for interior/exterior applications and on both horizontal and vertical surfaces. Ideal for use on doors, windows, trim & cabinetry; shelving, fixtures, railings; concrete floors & safety markings, in residential, commercial and institutional settings. *PPG Break-Through!* offers excellent adhesion to difficult substrates, including fiberglass, ceramic tile, laminate, and architectural plastics and endures extreme bends and deformation without cracking or peeling.

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

V52-410	White & Pastel Base
V52-420	Midtone Base*
V52-440	Ultra Deep Base*
V52-90	Wrought Iron Black
V52-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.

PRODUCT DATA

PRODUCT TYPE:	Water-Borne Acrylic
SHEEN:	Satin, 20-30 @60º
VOLUME SOLIDS*:	36% +/- 2%
WEIGHT SOLIDS*:	49% +/- 2%
WEIGHT/GALLON*:	10.3 lbs. (4.7 kg) +/- 0.2 lbs. (91 g)
VOC:	< 50 g/L (0.4 lbs./gal.)

*Product data calculated on product V52-410.

COVERAGE: Approximately 400 sq. ft. (37 sq. meters) per U.S. gallon (3.78 L) on primed, smooth, nonporous surfaces.

Wet Film Thickness:	4.0 mils
Wet Microns:	102
Dry Film Thickness:	1.4 mils
Dry Microns:	36

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 @ 77ºF (25ºC); 50% relative humidity.

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

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 200ºF (93ºC)

FEATURES / BENEFITS

Features	**Benefits**
Excellent Flow & Leveling	Delivers smooth enamel finish when brushed, rolled or sprayed
Very Quick Dry	Dry to touch in 15-20 minutes, re-coat in 1-hour to complete projects faster
Outstanding Early Block Resistance	Provides tack free film ideal for doors, windows, cabinets, and shelving
Ultra-Durable Finish	Dirt-resistant, stain-resistant, and highly resistant to hand-oils
Excellent Resistance to Stains, Hand-0ils, and Household Cleaners	Ideal for use on high-touch surfaces
Excellent Adhesion	Self-priming on a variety of difficult substrates
Excellent Flexibility	Withstands extreme bends with no cracking or peeling

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. When applied to an uncoated substrate or to bare wood, two coats are required with the first coat acting as the primer. For exterior ferrous metal, tannin staining woods, fresh concrete or masonry (less than 30 days cure), or chalky surfaces, use of an appropriate specialty primer is recommended for best results.

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: Depending on the type of aluminum a primer may be required for proper adhesion. 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 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 painting. If pH is greater than 10, prime with an alkali resistant primer.
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. 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: A primer is required for proper adhesion. 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 the substrate.
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 this product or an alkali resistant primer.
WOOD (INTERIOR): Unpainted wood or wood in poor condition should be sanded smooth, wiped clean. Any knots or resinous areas must be primed before painting. Countersink all nails, putty flush with surface. For non-bleeding or previously painted wood, no primer is required.
VINYL & ARCHITECTURAL PLASTICS: No primer needed. 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	Self-priming or 4020, 90-712
Ceramic Tile/Fiberglass/Laminate	Self-priming
Concrete	Self-priming, 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	Self-priming, 6-2, 9-900, 12-900XI, 17-921XI
Plaster	Self-priming, 4-603XI, 17-921XI
Vinyl and Architectural Plastics	Self-priming

PACKAGING

Quart (946 mL)
1-Gallon (3.78 L)
Not all products are available in all sizes.

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 subject to ponding water. 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.

NOTE: Not recommended for use with TOP GUN® 400 Sealant, use TOP GUN® 250 or TOP GUN® 300.

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: For airless spray application, use tip size .009" - .013" (fine finish tip) and a pressure range of 1500 to 2000 psi. 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: Nylon/Polyester Brush
Roller (nap roller cover): 3/16" woven

Thinning: No thinning required for airless spray application. If necessary, 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 90ºF	10 to 32ºC
Ambient:	50 to 90ºF	10 to 32ºC
Substrate:	50 to 90ºF	10 to 32ºC

PRECAUTIONS

WARNING! HARMFUL IF INHALED. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. 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 SDS and label information. FIRST AID:** If swallowed, rinse mouth with water (only if the person is conscious). Call physician immediately. 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. Call physician immediately. Contains: water (7732-18-5); acrylic polymer (not available); titanium dioxide (13463-67-7); nepheline syenite (37244-96-5); proprietary glycol dibenzoate mixture (not available); 1-(2-butoxy-1-methylethoxy)propan2-ol (29911-28-2); propane-1,2-diol, propoxylated (MW<2000) (25322-69-4); carbon black, respirable powder (1333-86-4). Contains isothiazolinones. May cause allergic reaction. Keep out of the reach of children. For workplace use, an SDS is available from your retailer or by calling (412) 492-5555. EMERGENCY SPILL INFORMATION: (412) 434-4515.

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