

“1 SHOT” TECHNICAL GUIDE

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NOTES:

Lettering Enamels

Description:

Oil based, high gloss enamels for interior or exterior use on metal, glass, wood, or masonite. Intended for sign writing on store fronts, vehicles, and wherever fine lettering work is desired.

Characteristics:

"1 SHOT"® Lettering Enamels have outstanding hiding, durability, and fade resistance. Superior flow characteristics assure the virtual absence of brush marks and provide a clean, sharp edge.

Limitations:

Drying time is best when temperature is above 65°F. Between 50°F and 65°F, drying time is much slower. Paint will not completely dry below 50°F.

Surface Preparation:

Apply over clean, dry surfaces which are free from wax, grease, dust, chalk, etc. Use "1 SHOT"® Metal Primer or "1 SHOT"® Acrylic Bonding Primer as primers on metal, wood or masonite. Glass does not require priming. Non-enamel receptive vinyl or synthetic surfaces should be primed with "1 SHOT"® 5004 Vinyl Primer.

Application Method:

Quill, Brush, Roller, or Spray.

Thinner:

Thin up to 10% with "1 SHOT"® Reducer, Low Temp Reducer (for spray application) or High Temp Reducer. Do not use Lacquer Thinner or Xylene to reduce Lettering Enamels as the solvents are so strong they will interfere with the properties of the paint.

Mixing / Intermixing:

Stir thoroughly before using. All colors, except 199-L Black, may be intermixed with each other. Note, however, that 102-L Fire Red, 104-L Bright Red, and 108-L Maroon will fade. When mixed with 101-L Lettering White and will also fade to a lesser degree when mixed with other colors. Tinting reds with white will reduce exterior durability. Use "1 SHOT" Tinting Black to achieve shades of gray by mixing with 101-L Lettering White; it can also be used to deepen and darken other colors.

Drying:

Normally to touch in 2-5 hours; to handle in 8-12 hours. Recoat in 12-16 hours.

Cleanup:

Clean equipment with "1 SHOT"® Brush Cleaner.

Safety:

This product is for professional, commercial, and industrial use only. They are not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

CHROMATIC Bulletin Colors

Description:

Alkyd-resin (oil based) gloss enamels for interior or exterior use on wood, masonite, metal or masonry. Intended for sign painting on large areas and/or rough surfaces such as billboards or masonry walls.

Characteristics:

Excellent exterior durability, very good hiding power, chalk resistance and a full gloss finish. Formulated to provide easy application with a large brush.

Limitations:

Drying time is best when the temperature is above 65°F. Between 50° F and 65°F, drying time is much slower. Paint will not completely dry below 50°F.

Surface Preparation:

Paint only clean, dry surfaces. Remove all grease, oil, dirt or other foreign matters by solvent or detergent washing. New surfaces should be primed with either “1 SHOT”® Acrylic Bonding Primer / Block Out White if the substrate is wood, masonite, MDO plywood, masonry, galvanized metal, drywall or glass or “1 SHOT”® Metal Primer if the substrate is metal. Glossy surfaces being repainted should be dulled slightly before recoating. Use fine sandpaper and sand lightly to dull, then wipe with a cloth dampened with Mineral Spirits to eliminate dust.

Application Method:

Apply with brush, roller or spray. In extremely cold weather, add a small amount of “1 SHOT”® Low Temp Reducer or V.M.P. Naphtha for better performance. When used in very hot weather, add a small quantity of “1 SHOT”® Reducer or High Temp Reducer to improve flow.

Thinning:

Thinning is generally not required, but thin sparingly if needed for application. It is recommended to thin with either “1 SHOT”® Low Temp Reducer, Reducer or High Temp Reducer depending on weather conditions. Thinning with “1 SHOT”® Low Temp Reducer will produce a faster set. Do not use water.

Mixing/Intermixing:

All colors, except B021 Black, may be intermixed with each other. Note, however, B102 Fire Red, B104 Bright Red, B106 Carmine and B108 Maroon will fade to a lesser degree when mixed with other colors. Use 4001 Shading Black to achieve shades of gray by mixing with B101 White; it can also be used to darken/deepen other colors.

Drying:

Normally to touch in 2-5 hours; to handle in 8-12 hours. Recoat in 12-16 hours.

Cleanup:

Clean equipment with “1 SHOT”® Brush Cleaner or Mineral Spirits.

Safety: for professional, commercial and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current “Material Safety Data Sheet” for this product

Fluorescent Colors

Description:

Semi-transparent oil based flat paints with sparkling color clarity for interior or exterior use by commercial sign painters.

Limitations:

Before applying Fluorescent Colors to any vinyl surface, "1 SHOT"® Vinyl Primer must be applied. Because of the variety of vinyls available, we strongly recommend testing adhesion prior to beginning a job. Test "1 SHOT"® Fluorescent UV Topcoat Clear over Fluorescent Colors when the substrate is vinyl; otherwise, poor drying may result. "1 SHOT"® Fluorescent Colors are not intended for long term exterior exposure.

Characteristics:

"1 SHOT"® Fluorescent Colors brush easily, have good adhesion and are fast drying. Dark, opaque backgrounds or outline colors can be cut into the copy line for sharp detail and maximum contrast after the colors have top dried.

Surface Preparation:

Apply over clean, dry surfaces which are free from wax, grease, dust, chalk, etc. Colors are brightest when applied over a white surface such as Chromatic B101 White or 197-B "1 SHOT"® Graphic Coat Block Out White.

Application Method:

Use a soft varnish brush and apply a thin coat with minimum pressure. Thin spots will fade prematurely, so keep the brush full and use short strokes for uniform coverage. For brush or roller, one coat is usually sufficient for interior coverage. For spray application, it is best to apply three thin coats. Color will vary depending on film thickness. For increased protection against ultraviolet light, topcoat with 220-F "1 SHOT"® Fluorescent UV Topcoat Clear. Two coats of this protective clear will produce a high gloss finish.

Screen Printing:

May also be applied by screen printing over white substrate including paper, board, wood, metal and certain plastics. Apply through No. 8 to No. 16 mesh screen. Any type of stencil may be used.

Thinning:

For brush application, thin up to 5% with "1 SHOT"® Low Temp Reducer, High Temp Reducer or Mineral Spirits. For spray application, thin up to 15% with "1 SHOT"® Low Temp Reducer or High Temp Reducer. May also thin with Mineral Spirits or V.M.P. Naphtha.

Mixing:

Stir until thoroughly mixed.

Drying:

Allow at least 1 hour for top drying. Oxidative curing for 1 to 2 days is recommended. When spraying, allow 5 minutes drying time between passes and 1 hour setup time between coats.

Cleanup:

Clean equipment with “1 SHOT”® Brush Cleaner or Mineral Spirits.

Safety:

This product is for professional, commercial and industrial use only. See Caution and Warning statements on label. It is not to be used in and around the household. For health and safety considerations, consult the current “Material Safety Data Sheet” for this product.

Fluorescent UV Topcoat Clear, 220F

Description:

A superior product specifically designed as a topcoat for Fluorescent Colors only. This oil based, clear finish will prolong the life of the fluorescent sign by offering increased protection against ultraviolet light.

Limitations:

For use over Fluorescent Colors only. If the surface being applied to is vinyl, test before applying over Fluorescent Colors. Fluorescent UV Topcoat Clear could cause the Fluorescent Colors to not completely dry when used over vinyl.

Surface Preparation:

Apply over clean, dry surfaces which are free from wax, grease, dust, etc.

Application Method:

Brush, roller, conventional or airless spray.

Thinning:

If necessary, thin sparingly with "1 SHOT"[®] High Temp Reducer. For spray application, thin with "1 SHOT"[®] Low Temp Reducer.

Mixing:

Stir until thoroughly mixed.

Drying:

Normally to touch in 30-45 minutes; to handle in 3-4 hours. Recoat in 12-16 hours.

Safety:

This product is for professional, commercial and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Art and Sign Poster Colors

Description:

Alkyd-resin (oil based) flat paints for interior use (limit exterior use to short term projects) on paper, cardboard, muslin, stretched canvas, wood, masonite, metal, or glass. Intended for use by commercial artists and show card writers for displays, designs, backgrounds and accents.

Characteristics:

Seals porous surfaces. Avoids an unattractive variation in flatness or sheen when over-lapping strokes are required. Excellent hiding power and will not wrinkle paper.

Limitations:

Drying time is best when the temperature is above 65°F. Between 50°F and 65°F, drying time is much slower. Paint will not completely dry below 50°F.

Surface Preparation:

Paint only clean, dry surfaces that are free of wax and foreign material. Cardboard, paper, and stretched canvas (100% cotton) do not require priming. Metal should be primed with "1 SHOT"® 5006 Metal Primer. Rough wood (such as plywood) should be primed with "1 SHOT"® 5005 Acrylic Bonding Primer.

Application Method:

Brush, Roller or Spray.

Thinning:

Thinning is generally not required, but thin sparingly if needed for application with "1 SHOT"® 6000 Reducer, 6001 Low Temp Reducer (for faster set), or 6002 High Temp Reducer (for slower set).

Mixing / Intermixing:

Stir thoroughly before using. All colors, except 3099 Black, may be intermixed with each other.

Drying:

Normally to touch in 30-45 minutes; to handle 3-4 hours. Recoat in 12-16 hours.

Cleanup:

Clean up with "1 SHOT"® Brush Cleaner.

Storage:

To minimize skinning or waste after 1/4 or more of the contents have been used and the remainder is to be saved for a week or more, store what is left in a smaller, sealed full container. Rotate contents by inverting container at least once a month to prevent pigments from settling.

Safety: This product is for professional, commercial and industrial use only. It is not intended to be used in or around the household. See Warning and Caution statements on the label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Pearlescent Enamels

Description:

Oil based, high gloss enamel for exterior use on metal, glass (not for use on windshields), wood masonite, MDO, and enamel receptive vinyl. Intended for sign writing on exterior signs, store fronts, vehicles and wherever fine lettering work is desired.

Characteristics:

"1 SHOT"® Pearlescent Enamels with brilliant luster under high intensity light or direct sunlight will highlight any special project.

Limitations:

Drying time is best when temperature is above 65°F. Between 50°F and 65°F, drying time is much slower. Paint will not completely dry below 50°F.

Surface Preparation:

Apply over clean, dry surfaces, which are free from wax, grease, dust, chalk, etc. Use "1 SHOT"® 5006 Metal Primer or "1 SHOT"® 5005 Acrylic Bonding Primer as primers on metal, wood or masonite. Glass does not require priming. Non-enamel receptive vinyl or synthetic surfaces should be primed with "1 SHOT"® 5004 Vinyl Primer.

Application Method:

Quill, Brush, Roller or Spray.

Thinner:

Thin up to 10% with "1 SHOT"® 6000 Reducer, 6001 Low Temp Reducer (for spray application) or 6002 High Temp Reducer. Do not use Lacquer Thinner or Xylene to reduce Lettering Enamels, as the solvents are so strong they will interfere with the properties of the paint.

Mixing:

Stir thoroughly before using.

Drying:

Normally to touch in 2-5 hours; to handle in 8-12 hours. Recoat in 12-16 hours.

Cleanup:

Clean equipment with "1 SHOT"® 4004 Brush Cleaner.

Safety:

This product is for professional, commercial, and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Speed Dry Enamel White, 4000

Description:

Alkyd-resin (oil based) gloss enamel for interior or exterior use on metal, glass, wood or masonite. Intended for use by sign makers as a background paint when it is desired to apply both background and lettering/design in the same day.

Characteristics:

Excellent exterior durability, very good hiding power, smooth uniform surface and a full gloss finish. Brushes easily; despite being fast drying.

Limitations:

Drying time is best when the temperature is above 65°F. Between 50°F and 65°F, drying time is much slower. Paint will not completely dry below 50°F.

Surface Preparation:

Stir paint until thoroughly mixed. Paint only clean, dry surfaces. Remove all grease, oil, dirt or other foreign matter by solvent or detergent washing. New surfaces should be primed with either "1 SHOT"® Acrylic Bonding Primer / Block Out White if the substrate is wood, masonite, MDO plywood, masonry, galvanized metal, drywall or glass; or "1 SHOT"® Metal Primer if the substrate is metal. Glossy surfaces being repainted should be dulled slightly before re-coating. Use fine sandpaper and sand lightly to dull, then wipe with a cloth dampened with Mineral Spirits to eliminate dust.

Application:

Use brush, roller or spray. After drying for several days, this product develops a very hard surface which will not adhere to Lettering Enamels or Bulletin Colors. Therefore, it should be lettered over within two days after application. If this is not possible, it may be advisable before lettering to lightly sand the surface and then wipe the surface with a rag containing Xylol or liquid paint softener.

Thinning:

Thin sparingly with "1 SHOT"® Reducer, Low Temp Reducer or High Temp Reducer. Mineral Spirits or V.M.P. Naphtha may also be used.

Drying:

Normally dust free in ¾ to 1 hour and to handle and letter over in 4 hours. High humidity will slow drying. May be baked at 200°F for 5 minutes.

Cleanup:

Clean equipment with "1 SHOT"® Brush Cleaner or Mineral Spirits.

Safety:

This product is for professional, commercial, and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Tinting Black, 4001 / Tinting White, 4002

Description:

The 4001 is intended primarily to be mixed with 101L Lettering White or B101 Bulletin White to achieve various shades of gray with ease of mixing while not affecting the properties of the base coating; and without streaking. The 4002 is intended to be mixed with 199L Lettering Black. They may also be used to darken and deepen "1 SHOT"® Lettering Enamels and Bulletin Colors. These are alkyd-resin (oil based.)

Spread:

Not to be used as a topcoat and not to be used in latex or water thinned paints.

Thinning:

Thin with "1 SHOT"® Reducer, Low Temp Reducer or High Temp Reducer depending on weather conditions. Also can be thinned with Mineral Spirits or V.M.P. Naphtha.

Mixing / Intermixing:

Stir thoroughly before using. Completely compatible with "1 SHOT"® Lettering Enamels and Bulletin Colors.

Drying:

Normally to touch in 2-5 hours; to handle in 8-12 hours. Recoat in 12-16 hours.

Cleanup:

Clean equipment with "1 SHOT"® 4004 Brush Cleaner or Mineral Spirits.

Storage:

Rotate tightly sealed container by turning over at least once a month to minimize settling of pigments.

Safety:

This product is for professional, commercial, and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Sign Restoring Clear, 4003

Description:

An oil based clear finish formulated for sign restoration. When repainting is not desired this product may be used to partially restore gloss level and color on signs originally painted with "1 SHOT"® Lettering Enamels or Chromatic Bulletin Colors.

Limitations:

When applying "1 SHOT"® Sign Restoring Clear over work done with "1 SHOT"® Lettering Enamels the Sign Restoring Clear requires a minimum 30 day curing period to completely harden. Specifically when used over work done on vehicles, do not wash vehicle or allow gasoline to come in contact with the area until 30 days from the date of application.

Surface Preparation:

Apply over clean, dry surfaces which are free from wax, grease, dust, chalk, etc.

Application Method:

Brush, roller, conventional or airless spray.

Thinning:

Thin, if necessary, with "1 SHOT"® Reducer, Low Temp Reducer or High Temp Reducer. Mineral Spirits may also be used.

Mixing:

Stir until thoroughly mixed.

Drying:

Normally to touch 3-4 hours; to handle in 8-12 hours. Recoat in 12-16 hours.

Cleanup:

Clean equipment with "1 SHOT"® Brush Cleaner or Mineral Spirits.

Safety:

This product is for professional, commercial and industrial use only. It is not intended to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Brush Cleaner, 4004

Description:

A premium product designed for conditioning, cleaning and storing brushes that have been used with oil based paints. Excellent for reconditioning, softening and renewing hardened natural and nylon brushes and has been specifically formulated not to interfere with the properties of oil based sign paints.

Limitations:

Not intended for brushes completely hardened by paint or containing lacquer paint.

Directions for Use:

For best results, first clean brush thoroughly with “1 SHOT” ® 4004 Brush Cleaner. Next, rinse by stirring cleaned brush in second container of clean solution. Store brush in clean solution to maintain “like new” condition. Partially hardened brushes can be softened in most cases by soaking for several days. This may also be used for cleaning and conditioning rollers.

Safety:

This product contains Petroleum Distillates. See Warning and Caution statements on label. For health and safety consideration, consult the current “Material Safety Data Sheet” for this product.

Speed Dry UV Acrylic Clear, 4005 / 4015

Description:

“1 SHOT”® Speed Dry UV Acrylic Clear is a super clear, fast dry, and blister/stain resistant topcoat. It’s a multipurpose solvent base acrylic clear with ultra violet absorbers that help protect against color fading. This product is for interior or exterior use on PVC pressure sensitive vinyl. For those who like to paint vinyl this product will extend the life of the vinyl as well as the paint used on it. As well as wood, masonite, MDO, drywall, metal, and plastic. Also excellent for use as a clear overcoat for most inkjet prints. The UV absorbers in this product will help extend the color of dye and pigment based inks on prints from large format printers. The acrylic nature of this clear coat is non-yellowing and waterproof, which will seal print on vinyl against weathering. We recommend that all materials top coated with our new clear coat be edge sealed to protect the adhesive edge. “1 SHOT”® 4005 Speed Dry UV Acrylic Clear is very flexible and makes a great clear over gold leaf.

Limitations:

Although lifting or wrinkling is not experienced after 24 hours over most air dry enamels, to be doubly sure, we suggest waiting 72 hours before top coating with the clear. It is always best to test the clear over the enamel you are planning to use on a piece of scrap before finalizing job. You can shorten this waiting time by adding “1 SHOT”® 4007 Hardener to the enamel.

Surface Preparation:

Paint only on clean dry surfaces. Remove all grease, oil or other foreign matter by solvent or detergent washing. Scrape off loose paint. Sand old, glossy surfaces. Make sure the paint is completely dry when applying over previously painted surfaces.

Application:

Foam brush, foam roller, or spray.

Thinning:

Normally none required - if necessary for thinning or spray application use “1 SHOT”® 6001 Low Temp Reducer. Do not thin inconsistent with local VOC regulations.

Mixing:

Stir until thoroughly mixed. Strain material before spray application.

Drying:

Normally dust free and to handle in 30 to 60 minutes. High humidity will slow drying. Recoat in 2 hours.

Cleanup:

Clean equipment with “1 SHOT”® 4004 Brush Cleaner.

Safety:

This product is for professional, commercial and industrial use only. It is not intended to be used in or around

the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Speed Dry UV Acrylic Clear Aerosol, 4005A / 4015A

Description:

Now able to obtain the same great results as the Liquid 4005 only you now have the ease of application of an aerosol can. "1 SHOT"® Speed Dry UV Acrylic Clear Aerosol is a super clear, fast dry, and blister/stain resistant topcoat. It's a multipurpose solvent base acrylic clear with ultra violet absorbers that help protect against color fading. This product is for interior or exterior use on most inkjet prints, PVC pressure sensitive vinyl, plastic, wood, Masonite, MDO plywood, drywall, and metal. For those who like to paint vinyl this product will extend the life of the vinyl as well as the paint used on it. Also excellent for use as a clear overcoat for the UV absorbers in this product will help extend the color of dye and pigment based inks on prints from large format printers. The acrylic nature of this clear coat is non-yellowing and waterproof, which will seal print on vinyl against weathering. We recommend that all materials top coated with our new clear coat be edge sealed to protect the adhesive edge and to eliminate pull from surface tension during the drying process. "1 SHOT"® 4005 Speed Dry UV Acrylic Clear Aerosol is very flexible and makes a great clear over gold leaf.

Limitations:

Although lifting or wrinkling is not experienced after 24 hours over most air dry enamels, to be doubly sure, we suggest waiting 72 hours before top coating with the aerosol clear. It is always best to test the aerosol clear over the enamel you are planning to use on a piece of scrap before finalizing job. You can shorten this waiting time by using "1 SHOT"® 4007 Hardener.

Surface Preparation:

Paint only on clean dry surfaces. Remove all grease, oil, dirt or other foreign matter by solvent or detergent washing. Scrape off loose paint. Sand old glossy surfaces. Make sure the paint is completely dry when applying over previously painted surfaces.

Application:

Before applying, shake aerosol can vigorously for one minute and often during use. Hold aerosol can upright 10-12" from surface and spray in a steady back and forth motion, slightly overlapping each stroke. Keep the aerosol can the same distance from the surface and keep can moving while spraying to avoid sagging. Apply 2 or more light coats a few minutes apart. May recoat anytime. If a large amount of spraying is to be done, use of an aerosol hand gun is suggested to avoid finger fatigue.

Drying:

Dries to the touch in 30 minutes and to handle in 1 hour at 70 °F (21 °C) - 50% relative humidity. Allow more time at cooler temperatures. Use outdoors, or in well-ventilated area, when temperature is above 50 °F (10 °C) and humidity is below 85% to ensure proper drying.

Precautions:

Avoid spraying in very windy, dusty conditions. Cover near-by objects to protect from spray mist.

Finalization:

When finished spraying, clear spray valve by turning can upside down and pushing spray button for 5 seconds.

Clogging:

If valve clogs, twist and pull off spray tip and rinse it in a solvent such as mineral spirits. Do not stick a pin or other object into the stem.

Safety:

VAPORS MAY IGNITE EXPLOSIVELY. DO NOT EXPOSE TO HEAT OR STORE AT TEMPERATURES ABOVE 120 °F (50 °C) USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN. This product is for professional, commercial and industrial use only. It is not intended to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product PRIOR TO HANDLING.

Super Gloss Tinting Clear, 4006

Description:

Oil based high gloss clear for use in tinting “1 SHOT”® Lettering Enamels and Bulletin Colors without affecting the properties of the base coatings.

Characteristics:

“1 SHOT”® 4006 Super Gloss Tinting Clear is designed primarily for achieving various ½ tones and shades of color. It is excellent for the creation of tones from fully transparent to fully opaque colors.

Limitations:

Drying time is best when temperature is above 65°F. Between 50°F and 65°F, drying time is much slower. Paint will not completely dry below 50°F.

Surface Preparation:

Apply over clean, dry surfaces which are free from wax, grease, dust, chalk, etc. Use “1 SHOT”® Metal Primer or “1 SHOT”® Acrylic Bonding Primer as primers on metal, wood or masonite. Glass does not require priming. Non-enamel receptive vinyl or synthetic surfaces should be primed with “1 SHOT”® Vinyl Primer (See section on Vinyl Primer in this guide for detailed instructions.)

Application Method:

Quill, Brush, Roller, Conventional or Airless Spray.

Thinning:

Thin up to 5% with “1 SHOT”® Reducer, Low Temp Reducer (for spray application) or High Temp Reducer. May also thin with Mineral Spirits or V.M. P. Naphtha.

Mixing/Intermixing:

Stir thoroughly before using. The “1 SHOT”® 4006 Super Gloss Tinting Clear can be intermixed with all “1 SHOT”® Lettering Enamels and Bulletin Colors. Note, however, that in making the product transparent may result in a shorter life span of the color used.

Drying:

Normally to touch in 2-5 hours; to handle in 8-12 hours. Recoat in 12-16 hours.

Cleanup:

Clean equipment with “1 SHOT”® Brush Conditioner or Mineral Spirits.

Safety:

This product is for professional, commercial and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Hardener, 4007

Description:

This product is designed to accelerate drying time for all "1 SHOT"® alkyd based paints including: Lettering Enamels, Bulletin Colors and Pearlescent Enamels. "1 SHOT"® Hardener will improve adhesion to most substrates as well as extend color life and increase gloss. Also, will aid in preventing lifting when an automotive clear coat is to be applied over the paint.

Directions:

Use for lettering, striping, or coating out various substrates where drying time needs to be accelerated in order to speed up production. Use whenever "1 SHOT"® 4005 Speed Dry UV Acrylic Clear is to be sprayed over "1 SHOT"® alkyd based paints.

Mixing:

Add up to 10% by volume of "1 SHOT"® Hardener to "1 SHOT"® alkyd based paints and mix thoroughly. Add hardener before using any reducers. Thinning with a reducer should not be necessary. If thinning is required, thin with "1 SHOT"® 6001 Low Temp Reducer only.

Pot Life:

2 to 3 hours.

Cleanup:

Clean equipment promptly with "1 SHOT"® 4004 Brush Cleaner.

Limitations:

Make sure cap is securely tightened to help prevent crystallization. Avoid using "1 SHOT"® Hardener during humid conditions. Evaluate this product for suitability and performance on a test area before using.

Safety:

This product is for professional, commercial and industrial use only. It is not intended to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Fast Dry Gold Size, 4008

Description:

This product is an exceptional self-leveling and fast setting size for use in gold leafing. Designed to retain elasticity. The Fast Dry Gold Size allows gilding to begin in about an hour, and engine turning for up to an additional 8 hours after application.

Surface Preparation:

Apply over clean, dry surfaces which are free from wax, grease, dust, chalk, etc. **WARNING!** If you scrape, sand or remove old paint, you may release lead dust. **LEAD IS TOXIC.** Contact the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Mixing:

No mixing required. Do not stir or shake, otherwise straining may be required.

Thinning:

If a slower dry time and an extended window are desired, this product may be reduced up to 10% with 1 SHOT® 6000 reducer. Do not thin inconsistent with local VOC regulations.

Application:

Quill, brush, roller or spray.

Clean Up:

Clean equipment with 1 SHOT® Brush Cleaner.

Limitations:

Drying time is best when temperature is above 65°F. Do not apply below 50°F.

Important:

While the descriptions, data and information contained herein are presented in good faith and believed to be accurate, they are provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished here are given gratis. No obligations or liabilities for the description, data and information given are assumed. All such being given and accepted at your risk.

This product is for professional, commercial and industrial use only. See warning and caution statements on label. It is not intended to be used in or around the household. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Vinyl Primer, 5004

Description:

Water based primer for vinyl and most synthetic surfaces providing excellent adhesion for "1 SHOT"® Lettering Enamels, Chromatic Bulletin Colors, Fluorescent Colors and Art and Sign Poster Colors. Vinyl Primer is milky in appearance in the can, but dries clear.

Limitations:

Do not use thinners or chemicals to clean surface already coated with "1 SHOT"® Vinyl Primer. Protect can from freezing. Use brushes only previously used with water based products.

Surface Preparation:

Pre-etch all surfaces by wiping with a cloth dampened with "1 SHOT"® Low Temp Reducer or V.M.& P. Naphtha. To ensure proper adhesion to a specific vinyl or synthetic surface, apply a piece of tape over a test patch of "1 SHOT"® Vinyl Primer, then peel from the surface. If "1 SHOT"® Vinyl Primer holds to the surface, the surface is receptive.

Application Method:

Brush, roller, rag or spray. A thin coat is preferred; avoid uneven, heavy coats.

Thinning:

None is recommended.

Mixing:

Shake well before using.

Drying:

Ready for lettering in 30-45 minutes.

Cleanup:

Clean equipment and hands with warm, soapy water.

Safety:

This product is for professional, commercial and industrial use only. It is not intended to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Acrylic Bonding Primer, 5005

Description:

A multi-purpose interior or exterior waterbased acrylic primer formulated with superior adhesion qualities. Excellent for use as a white blackout for previously painted vinyl surfaces. Fast dry, blister/stain resistant. Easy to apply on a variety of surfaces; including enamel receptive vinyl, wood, masonite, MDO plywood, drywall, glass, galvanized metal and masonry surfaces. "1 SHOT"[®] Acrylic Bonding Primer provides excellent adhesion for top coating with "1 SHOT"[®] Lettering Enamels, Chromatic Bulletin[™] colors and Art and Sign Poster colors.

Limitations:

Avoid application in direct sunlight. Do not apply when temperature may drop below 50° F within 12 hours. Protect from freezing. Two coats may be required to block severe tannin staining.

Surface Preparation:

Paint only clean, dry surfaces. Remove all grease, oil, dirt or other foreign matter by solvent or detergent washing. **Enamel Receptive Vinyl:** Solvent wipe surface with Mineral Spirits. **Wood, Masonite, MDO Plywood:** Repair construction defects, fill openings and nail holes with latex caulk after primer is dry. Shellac knots and sap streaks. **Masonry:** Surfaces must be clean, dry and free from curing compounds, laitance, oil, grease, dirt, chalk or previously applied coatings. All surfaces should be acid etched with Muriatic Acid solution (1 part acid : 2 parts water.) **Galvanized Metal:** Remove all loose or scaling paint, loose or heavy rust, rust scale or other corrosion. Treat clean dry surface with acid pre-treatment for galvanized metal. **Drywall:** Remove all dust and/or foreign matter. **Glass:** Clean surface with glass cleaner and solvent wipe with V.M.&P Naphtha.

Spread:

Approximately 400-450 square feet per gallon.

Application Method:

Nylon or polyester brush, roller, conventional or airless spray.

Thinning:

Use water. For brush, roller or airless spray, none is normally required. However, up to ½ pint per gallon may be used. For conventional spray, thin ¼ pint per gallon to start. Up to ½ pint per gallon may be used.

Mixing:

Stir until thoroughly mixed. Strain material before spray application.

Drying:

At 70° F (21° C) - to touch, ½ hour; recoat in 1 hour.

Cleanup:

Clean equipment immediately with Soilax™ and water.

Storage:

Protect from freezing.

Safety:

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Metal Primer, 5006**Description:**

Primers for steel providing excellent adhesion, good corrosion resistance and low sheen. Extremely fast drying and may be top-coated the same day with "1 SHOT"® Lettering Enamels, Bulletin Colors, Pearlescent Enamels or Art & Sign Poster Colors.

Spread:

Coverage on smooth surfaces is approximately 300 sq. feet per gallon.

Surface Preparation:

Paint only clean, dry surfaces. Remove all grease, oil, dirt or other foreign matter from surfaces by solvent or detergent cleaning. Stir until thoroughly mixed. Strain material before spray application.

Application:

Brush, roller or conventional airless spray.

Thinning:

Use Xylene. For brush, roller or airless spray, none is normally required. However, up to ½ pint per gallon may be used. For conventional spray, thin ¼ pint per gallon to start; up to 1 pint per gallon may be used.

Drying:

At 75°F dries to touch in 30-45 minutes; to handle in 1hour. Re-coat in 24 hours, depending on strength of solvent top-coat.

Cleanup:

Clean all equipment immediately after use with Xylene.

Safety:

This product is for professional, commercial, and industrial use only. It is not to be used in or around the household. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

Reducer, Low Temp Reducer and High Temp Reducer

Description:

"1 SHOT"[®] 6000 Reducer is formulated to improve flow at normal temperature conditions by reducing viscosity without significantly altering the quality of the coating being reduced.

"1 SHOT"[®] 6001 Low Temp Reducer is formulated to improve flow and leveling at low temperatures by reducing the viscosity and accelerating the evaporation rate without significantly reducing the quality of the coating being reduced.

"1 SHOT"[®] 6002 High Temp Reducer is formulated to improve flow and leveling at high temperatures by reducing viscosity and slowing down the evaporation rate without reducing the quality of the coating being reduced.

Thinning:

Follow thinning instructions for the coating being reduced.

Safety:

This product is for professional, commercial and industrial use only. See Warning and Caution statements on label. For health and safety considerations, consult the current "Material Safety Data Sheet" for this product.

ANTI-GRAFFITI CLEAR – PRODUCT FACTS

Surface Preparation	Paint Only on Clean Dry Surfaces
Mixing Instruction	1 part 4016 anti-graffiti clear (part A) – gloss 1 part 4020 anti-graffiti clear (part B) 1 part 4018 anti-graffiti clear (part A) – Matte 1 part 4020 anti-graffiti clear (part B) DO NOT SHAKE! VERY IMPORTANT!!! STIR AND MIX WELL Mix thoroughly until uniform in color.
Re-Coat	1st coat – apply thin mist - VERY IMPORTANT!!! 2ND coat – wait 20 minutes for full coat (>4hours – sanding required)
Pot Life	2 - 3 hours @ 72 degrees F.
Application Method	Brush or Spray
Gloss	4016/4020 Anti-Graffiti Clear (Gloss) (95+ with 60 degree G.M.) 4018/4020 Anti-graffiti Clear (matte) (39 – 60 with 60 degree G.M.)
Chemical Resistance	Excellent
MEK Rubs	100+
Graffiti Removal	Excellent after 10 days aging
Drying Time	Under normal conditions, it is set to touch in 2 hours and ready for recoating in 3 hours.
Curing Time	10 Days at room temperature.
Thinner	Apply as is for brushing. For Spraying Clear Gloss Combo,

**add 10% Acetone or MEK. For Spraying Clear Matte Combo,
add 20% Acetone or MEK.**

Cleanup

Methyl Isobutyl Ketone or Methyl Ethyl Ketone

Limitations

**Dry time best above 65 degrees F.
Do not apply at temperatures below 50 degrees F.
Higher temperature decreases pot life.**

REFER TO PRODUCT LABEL, PRODUCT DATA AND MSDS SHEETS FOR ADDITIONAL USAGE INFORMATION

QUESTIONS AND ANSWERS

Air Brush & Air Spray Thinning

Question: What ratio should you thin “1 SHOT”® for air spraying and air brushing?

Answer: By law, we are only able to recommend up to 5% for Lettering Enamels, Chromatic Bulletin Colors and Art & Sign Poster Colors. Fluorescent Colors may be reduced up to 20%.

Clear Coats – Comparison of Appearance

Question: How do the following clear coats look in the can and how do they look when they are a dry film?

<i>Answer:</i>	<u>4003</u>	<u>5004</u>	<u>220-F</u>
Base	Solvent	Water	Solvent
Initial Appearance	Amber	Milky	Clear
Final Appearance	Clear	Clear	Clear

Coverage per Gallon

Question: What is the coverage per gallon of Lettering Enamels, Chromatic Bulletin Colors, Art & Sign Poster Colors and Fluorescent Colors?

Answer: For Lettering Enamels and Chromatic Bulletin Colors, an estimated 400-450 sq. ft. per gallon. For Art & Sign Poster Colors and Fluorescent Colors, an estimated 300-350 sq. ft. per gallon. Surface porosity will affect this range.

Disposal of Paints and Solvents

Question: What is the best way to dispose of paints and solvents?

Answer: Contact your local hazardous waste disposal service or any EPA Branch office for instructions.

Hazards with “1 SHOT”® Paint Products

Question: How hazardous are “1 SHOT”® paint products to my health and the environment?

Answer: “1 SHOT”® products are formulated for the needs of professional, commercial and industrial painters. Before using any “1 SHOT”® product, the label and current “Material Safety Data Sheet” for the product should be carefully reviewed. When used under the guidelines of the labels and “Material Safety Data Sheets”, “1 SHOT”® products are safe to personal health and the environment.

Pantone Matching System

Question: Is there a method or chart available to match Pantone Matching System (PMS) colors to “1 SHOT”[®] Lettering Enamels, Chromatic Bulletin Colors, Fluorescent Colors or Art & Sign Poster Colors?

Answer: There is not any literature available at this time. However, you can call One Shot, LLC and we will be happy to help you get as close as we can to a match between “1 SHOT”[®] and PMS Colors.

QUESTIONS AND ANSWERS

Peeling Surface / Sealer Application

Question: Can you apply a sealer to a surface that is peeling and stop the peeling process?

Answer: No. The sealer is dependent on the topcoat for bonding and will eventually flake off with the paint.

Primer for Glass

Question: What type of primer should you apply on glass?

Answer: No primer is needed on glass. However, make sure the glass is perfectly free from dirt, grease, grime, etc. prior to top-coating.

Slow Drying

Question: I have applied “1 SHOT”[®] to a surface, but the paint has not dried to the touch after 48 hours. What can I do?

Answer: Nothing – but start again. Either the paint is contaminated or the surface was not properly prepared. Keep in mind, reds tend to dry slower and high humidity can affect drying time.

Surface Prep – Various Surfaces

Question: What is the recommended method of Surface Prep for the following surfaces?

Answer:

Aluminum	Lightly sand surface, then wipe with an acid conditioner, use 197B Graphic Coat Block Out White or an aluminum primer (GD525) followed by sign paint.
Canvas	Use a latex primer followed by sign paint. This is for cloth 100% cotton canvas, not vinyl canvas. (For vinyl canvas, see Vinyl)
Concrete	Use “1 SHOT” [®] Acrylic Bonding Primer followed by sign paint.
Copper	Sand with 180 to 220 grit sandpaper, wipe down with Mineral Spirits, then apply sign paint.
Galvanized	Wipe with Xylol, followed by galvanized conditioner, then a primer for galvanized and finally the sign paint.
Glass	Clean surface with V.M. & P. Naphtha, followed by Windex and a second

wipe of V.M. & P. Naphtha, followed by the sign paint. The ammonia in the Windex will not affect the Lettering Enamels due to how quickly it will evaporate.

Metal Use “1 SHOT”® Metal Primer followed by sign paint.

Stainless Steel Sand with 180-220 grit sandpaper, then wipe with Mineral Spirits and apply sign paint.

Vinyl With an enamel receptive vinyl, lightly wipe surface with Mineral Spirits to remove any dust and then apply sign paint. For non-enamel receptive vinyl, follow directions under the Vinyl Primer section of this guide.

QUESTIONS AND ANSWERS

Surface Prep – Various Surfaces cont’d

Wood Apply a primer, either oil based or latex (“1 SHOT”® Acrylic Bonding Primer is recommended.) The primer can be followed by sign paint.

Thinners Recommended

Question: What kinds of thinners do you recommend for “1 SHOT”® paints?

Answer: “1 SHOT”® Reducer, Low Temp Reducer or High Temp Reducer depending on weather conditions. A few drops of Turps also works well.

Difference Between Chromatic Bulletin Colors and Lettering Enamels

Question: What is the difference between Chromatic Bulletin Colors and Lettering Enamels?

Answer: Chromatic Bulletin Colors are designed specifically for painting large exterior signs that are not expected to retain gloss and color longer than 12-18 months – such as roadside billboards. For this reason, Chromatic Bulletin Colors are formulated to be less durable and less opaque than Lettering Enamels; and as a result, cost less.

Question: What is the difference between B101, 197B and 4000?

Answer: 197B Graphic Coat Block Out White is a semi-opaque enamel for use as a first coat for repainting jobs where tracing and duplicating the old lettering graphics through and on top of a fresh, white background is desired. B101 Chromatic Bulletin White has higher opacity and is designed as a background enamel or for use specifically on billboards that require maximum 18 months life expectancy. 4000 Speed Dry Enamel White is designed as a background enamel when it is desired to apply both background and lettering/design in the same day. It also has excellent hiding power and excellent durability.

Drying Time Quickened

Question: How can I quicken the drying time of Chromatic Bulletin Colors using spray application?

Answer: Use “1 SHOT”® Low Temp Reducer.

Intermixing 197B with Chromatic Bulletin Colors and Lettering Enamels

Question: Can 197B be intermixed with Chromatic Bulletin Colors and “1 SHOT”® Lettering Enamels for the purpose of lightening or brightening those colors?

Answer: No. 197B cannot be intermixed with other “1 SHOT”® paints for that purpose. Eventually, the sign or area painted would chalk. For lightening or brightening, use either 101L or B101.

Clear Over Lettering Enamels

Question: What clear is recommended over Lettering Enamels?

Answer: We recommend that you do not clear over “1 SHOT”® Lettering Enamels as it will not improve gloss or durability and could yellow or lift paint. The only exception is for 109L Metallic Gold; for which we recommend one coat of Sign Restoring Clear.

QUESTIONS AND ANSWERS

Clothes – “1 SHOT” used to decorate clothing

Question: Can “1 SHOT”® be used to decorate clothing?

Answer: Yes, however, please use the following guidelines:
Test the type of cloth to which you will be applying “1 SHOT”® to, to make certain the fabric can withstand the solvents in “1 SHOT.”®
Do not use “1 SHOT”® on clothing intended to be worn or used around young children and babies. On clothing intended for adults, best results are achieved if the paint is air sprayed in a thin layer on to clothing. Thick coatings of paint on fabric will crack and peel.
Clothing should be hand washed and air dried. Do not put clothing painted with “1 SHOT”® in a clothes dryer!

Curing Time

Question: What is the expected curing time of Lettering Enamels?

Answer: Approximately 30 days under normal temperature conditions. Humidity will slow curing time.

Drying Time

Question: What did I do wrong if my Lettering Enamel dries dull?

Answer: Either contamination of the paint or substrate – or over diluting with solvent.

Lettering Enamel Drying Time – Average

Question: What is the average drying time of Lettering Enamels?

Answer: To touch 2-5 hours; to handle in 8-12 hours; recoat in 12-16 hours.

Drying Time – Quickened

Question: How can I quicken the drying time of Lettering Enamels?

Answer: Pour a small portion of “1 SHOT”® Lettering Enamels into a clean glass or metal container and mix with a few drops of 6001 “1 SHOT”® Low Temp Reducer. The more reducer added to the enamel, the less opaque the enamel will be when it dries.

Existing Enamel Base/Coat Application

Question: Will there be a problem with adhesion by applying Lettering Enamels over an existing enamel base coat?

Answer: Yes. Lettering Enamel cures to a very hard finish. Without proper preparation, the new coat of enamel will eventually flake and peel off. Lightly sand the surface of existing enamel to create tooth to bond new enamel and then lightly wipe with solvent to remove dust.

Flexibility

Question: Are Lettering Enamels flexible enough to be applied to flexible face banner material?

Answer: Yes, as long as the material is not creased. If the wind bends the material enough to cause it to crease, the Lettering Enamels will start to peel off from the creased area.

QUESTIONS AND ANSWERS

Gloss Too High

Question: Is there a way to minimize the gloss of Lettering Enamels?

Answer: High gloss will diminish over time, but Chromatic Clear Flattening Paste may also be added to flatten the finish.

Automobile Lettering Cellophane Tape Residue

Question: After taping the top and bottom lines on a freshly repainted truck using regular cellophane tape, the adhesive remains stuck to the surface. How can I get it off without damaging the enamel underneath?

Answer: Carefully wipe with Mineral Spirits.

Automobile Lettering Clear Over Airbrushed Work

Question: What clear is compatible with Lettering Enamels and can be sprayed over airbrushed work on a vehicle?

Answer: Use "1 SHOT"® 4003 Sign Restoring Clear. Curing time is 30 days from date of application for clear coat to completely harden. Do not expose clear coated area to washing or gasoline for 30 days from date of application.

Automobile Lettering

Question: How do you remove Lettering Enamel off of a vehicle without affecting the original finish?

Answer: Depending on how much time has elapsed since the enamel was applied. If it has only been 1 or 2 days, the enamel can probably be removed with Mineral Spirits. After a couple of days, it may be difficult to remove enamel other than sanding the area lightly. If a stronger solvent, other than Mineral Spirits is used, it will most likely lift or damage the original finish.

Automobile Lettering Not Durable

Question: When lettering on aluminum truck bodies, the finding was that the letters do not stand up to much abuse, scratches, etc. I coated the letters with a clear, but it doesn't seem to help. Any suggestions?

Answer: Alkyd paint dries through oxidation. At 70°F, it will require a minimum 30 days time. Follow this process:

1. Lightly sand area to be lettered
2. Solvent wipe surface
3. Prime with 197B
4. Topcoat with “1 SHOT”
5. Allow 30 days curing time

Automobile Lettering

Question: How soon after lettering a vehicle can the vehicle be washed or power washed?

Answer: Wait at least 6 weeks for the paint to totally cure. Wash entire vehicle prior to doing lettering job.

QUESTIONS AND ANSWERS

Greens and Browns Bubbles

Question: Sometimes when I’m lettering with dark greens or other dark colors, I get bubbles in the surface of the paint. How can I avoid this?

Answer: This will occasionally happen with the darker colors and the air bubbles usually escape before the paint dries if contamination is not the cause of the bubbles. Try reducing the paint further with either “1 SHOT”® Reducer, Low Temp Reducer or High Temp Reducer depending on weather conditions.

Greens and Browns Poor Coverage

Question: The Lettering Enamel greens and browns appear to be oily and do not cover well. Is something wrong with them?

Answer: Nothing is wrong. The pigments for greens and browns are very heavy and settle to the bottom of the can. If the paints are not stirred very well, the paint will seem thin and oily.

Gym Floor / Lettering

Question: Can Lettering Enamels be used to letter the floor of a gym?

Answer: Yes, however, the curing time has to be a minimum of six weeks with no contact to the floor. There is no way to speed up this curing time.

Intermixing Colors

Question: Can Lettering Enamels be intermixed?

Answer: Yes, all colors can be intermixed except for 199L Black; which will streak if mixed. For darkening and deepening shades, we recommend using 4001 Tinting Black which tints without streaking. Tinting reds with white will reduce exterior durability.

Lettering Over New Background Enamel

Question: How soon can you letter over new background enamel paint?

Answer: When using 197B Graphic Coat Block Out White or B101 Chromatic Bulletin White, wait at least 8 hours; adjust for humidity. 4000 Speed Dry Enamel White can be lettered over in 4 hours.

MDO Board – Surface Prep

Question: Can you use Lettering Enamels on an MDO board surface?

Answer: Yes, however, the following steps should be followed for good adhesion:

Unprimed Board: Wet part of surface. If water beads up, board has been coated with wax for shipping. Wipe board down with solvent, prime with “1 SHOT”® Acrylic Bonding Primer and coat as normal with Lettering Enamels.

Primed Board: Factory primed board should be tested for adhesion by the following test: Paint small area with “1 SHOT”® and at the end of each week, over a 4 week period of time, scratch area with a fingernail. Paint should become increasingly hard and should not peel up after 4 weeks. If paint peels up, lightly sand entire surface of board to create “tooth”, wipe with solvent and then apply “1 SHOT”®

QUESTIONS AND ANSWERS

Paper Surface Prep

Question: Can Lettering Enamels be applied to regular drawing paper or packaging paper?

Answer: A latex based primer must be applied prior to using Lettering Enamels on paper.

Peeling

Question: The Lettering Enamel was applied over a previously painted surface and now it is peeling – what is the problem?

Answer: Contamination of paint or improperly prepared surface. Call One Shot, LLC for specific advice.

Polyurethane Clear

Question: Can polyurethane clear be used over Lettering Enamels to speed up drying and improve durability?

Answer: No. You cannot use polyurethane over Lettering Enamels as the solvent in the polyurethane is too strong and will lift the paint as well as interfere with properties such as gloss, drying and durability.

Reducers, Lacquer Thinner / Xylene

Question: Can you use Lacquer Thinner or Xylene as a reducer for Lettering Enamels?

Answer: It is not recommended, as these solvents are very strong and may interfere with the properties of the Lettering Enamels. If painting over a previously painted surface with Lettering Enamels thinned with Xylene or Lacquer Thinner, the original finish or coating could be lifted off the substrate.

Removing “1 SHOT” From T-Shirt Fabric

Question: How can I remove “1 SHOT”® from T-shirt fabric (i.e. if I made an error airbrushing a t-shirt)?

Answer: For the best chance of not damaging fabric, try Trichlorethane (a chlorinated solvent.) You can also try Mineral Spirits, which doesn’t leave a stain, but takes a long time to dry. Or,

V.M. & P Naphtha which will dry very quickly but may leave stain. We recommend testing a small patch first.

Shelf Life

Question: What is the shelf life of a can of Lettering Enamel?

Answer: One year minimum from date of manufacture when maintained in protected storage at 40 – 100°F.

QUESTIONS AND ANSWERS

Slow Drying

Question: The Lettering Enamels are drying too slow. What can I do to increase the drying time?

Answer: Under normal conditions, Lettering Enamels dry as follows.
Set to touch – 30 minutes, tack free – about 4 hours, to handle - 8 hours
Reducing paint prior to application does not necessarily increase drying time. Try moving substrate to direct sunlight or force drying by either using a heat lamp or drying in an oven up to 150°F. (Over 150°F will have a negative effect on the paint.)

Stainless Steel Surface Prep

Question: Can you use Lettering Enamels over Stainless Steel?

Answer: Yes, but first you must sand the area with a fine sandpaper followed by a solvent wash.

Swimming Pool / Lettering

Question: Can Lettering Enamels be used to paint and number the bottom and perimeter of a swimming pool?

Answer: No, because a pool area is difficult to get completely dry. Adhesion will be very poor. With poor adhesion, the paint will peel and chip – a dangerous condition in a full pool (a person could ingest a paint chip while swimming.) Also, Lettering Enamels were not designed to be under water indefinitely from time of application and will not be durable.

Urethane over Lettering Enamels

Question: Can you urethane over “1 SHOT”® Lettering Enamels?

Answer: It is not recommended.

UV Topcoat Clear over Lettering Enamels

Question: Can a UV Topcoat Clear, such as “1 SHOT”® Fluorescent UV Topcoat Clear be used to clear over Lettering Enamels?

Answer: No. The strength of the solvents in “1 SHOT”® Fluorescent UV Topcoat Clear will lift the Lettering Enamels underneath it. Keep in mind that Lettering Enamels are formulated with

pigments that are UV inhibitive and are therefore designed to withstand weathering without being top-coated.

Vinyl's / Plastics

Question: Can "1 SHOT"® be used on vinyl's or plastics?

Answer: If the vinyl or plastic surface is not specified as enamel receptive, the surface has to be coated with "1 SHOT"® Vinyl Primer. Follow instructions under "1 SHOT"® Vinyl Primer in this guide booklet.

QUESTIONS AND ANSWERS

Window Lettering

Question: A window was properly prepared and lettered in temperatures below 50°F. The lettering is now peeling off. Is there something wrong with the paint?

Answer: The problem is the condition of the window surface when the paint was applied. In temperatures below the dew point, condensation will be created on the window surface. This will interfere with the adhesion of the Lettering Enamels to the window and cause the paint to peel. If a window lettering job must be done in high humidity/low temperature conditions, try using a portable heater pointed at the window surface; or better yet, create a stable temperature by tenting off the area with a portable heater working inside. Use caution not to put the paints or thinners too close to the heater!

GLOSSARY OF TERMS

Adhesion	The ability of a coating to stick to the surface, without peeling, flaking or cracking.
Air brush	A very small spray gun, not much larger than a fountain pen, designed as an artist's tool for the fine-spray application of paint, dye, watercolor pigment or ink by compressed air.
Ambient	The general amount of pollution in an air quality broad area.
Barrier coat	Coating used to isolate a paint system from the surface to which it is applied in order to prevent chemical or physical interaction between them, e.g. to prevent the paint solvent attacking the underlying paint or to prevent bleeding from underlying paint or material. "1 SHOT"® Vinyl Primer is a barrier coat between the vinyl surface and Lettering Enamels.
Binder	The ingredient in paint that holds the pigments together and gives the paint its ability to adhere to various surfaces.
Bite	Ability of a coating to penetrate or soften a previous coating or substrate.
Blistering	The formation of dome-shaped protrusions in paint caused by water under the surface or heat.
Chalking	The deterioration of paint into a light, powdery substance on the surface. It is caused by weathering.
Cutting in	Painting of a surface adjacent to another surface which must not be painted. For example, painting the frames of a window and avoiding painting the glass.
Dead flat	A coating having no gloss or sheen.
Drag	Resistance encountered when applying a coating by brush.
Elasticity	The ability of a coating to expand and contract with the surface it's painted on, as weather conditions change, without damaging the coating.

Enamel	Topcoat which is characterized by its ability to form a smooth surface; originally associated with a high gloss.
Filler coat	A coat of paint, varnish, etc. and used as a primer.
Fish eyes	Paint defect which manifests itself by the crawling of wet paint into a recognized pattern, resembling “dimples” or “fish eyes.”
Flaking/Scaling	The peeling of dried pieces of paint from a surface. Higher quality coatings resist flaking.
Hiding power	The ability of a paint to hide or obscure a surface over which it has been uniformly applied.

GLOSSARY OF TERMS

Leveling	The ability of paint to form a smooth coat no matter what type of application is used.
Masonite	Trademark name – used for fiberboard made by steam-exploded wood fiber.
Masonry	Something constructed of materials used by masons such as brick, mortar, tile, stone or building blocks.
Opacity	A general term to describe the degree to which a material obscures a substrate, as opposed to transparency which is the degree to which a material does not obscure a substrate
Orange peel	Surface condition characterized by an irregular waviness of enamel resembling an orange skin texture; sometimes considered a defect.
Pigment	The ingredient in paint that gives it its color. Titanium dioxide is the top quality white pigment, and also provides good hiding.
Plasticizer	A chemical agent added to a plastic composition to improve its flow and process ability and to reduce brittleness.
Porosity	Presence of numerous minute voids in a cured material.
Sagging	Downward movement of a paint film between the times of application and setting, resulting in an uneven coating having a thick lower edge.
Solvent	Liquid, usually volatile, which is used in the manufacture of paint to dissolve or disperse the film forming constituents, and which evaporates during drying and therefore does not become a part of the dried film. Solvents are used to control the consistency and character of the finish and regulate application properties.
Substrate	Any surface to which a coating or printing ink is applied.

Uniformity	The ability of paint to form an even looking appearance in color and texture. A paint with good uniformity can be touched up even months later, without any visible difference between earlier and later coats.
Vehicle	The liquid portion of paint, in which the pigment is dispersed; it is composed of binder and thinner.
Viscosity	The property of a fluid whereby it tends to resist relative motion within itself. A coating with a high viscosity reading would tend to be thicker out of the can and require reducing for better flow. A coating with a low viscosity reading would be just the opposite.
Washability/ Scrubability	The ability of paint to be washed without loss of color or of the paint film. Wet edge of a painted area which remains workable. When painting large surfaces, it is generally necessary to join up the edge of a paint film which has been left for an appreciable time. When this can be done by blending this edge with free working paint without any lap showing, the film is said to present a wet edge.