



VP SERIES VINYL PLUS SCREEN INK

TECHNICAL INFORMATION AND APPLICATION INSTRUCTIONS

- SUBSTRATES** Most vinyls and vinyl coated surfaces, polycarbonate and top coated polyesters.
- END USES** Reflective and flexible signage, decals, OEM identification, license plates, fleet markings, and acrylic displays.

PRODUCT INFORMATION

A fast-dry premium quality vinyl ink with excellent long term outdoor durability, specifically formulated for high-speed printing on a wide variety of vinyl and some other plastic substrates. This is an excellent product for vinyl decals for fleet marking, equipment identification, etc.

APPLICATION INFORMATION

- MESH** 200-355 monofilament polyester.
- STENCIL** Direct emulsions and capillary films that are solvent resistant.
- SQUEEGEE** 70-80 durometer polyurethane blades as well as multi-durometer blades that produce an even ink deposit.
- COVERAGE** 1,400-2,500 square feet per gallon depending on mesh used.
- PRINTING** VP Series may be printed straight from the container, but 10% - 20% thinning with VP-180 Thinner is recommended. To improve on-screen stability or under hot shop conditions, use some or all VP-182 Slow Thinner in place of VP-180 Thinner. For high speed printing and jet drying, thin the ink 15% - 25% with VP-180 Thinner or VP-181 Fast Thinner. Always mix well prior to each use.
- DRYING** VP Series dries by evaporation. Prints will normally air dry within 20 minutes with good air circulation or jet-dry within 30-60 seconds at 140°-160°F (53°-71°C). Drying times are dependent on ink deposit and air flow.

**CLEARS/
EXTENDERS/
ADDITIVES**

VP-170 Mixing Clear may be added to reduce color strength. Reduced colors will exhibit diminished light fastness. Limit reduction for jobs that require long-term weatherability. VP-170 may also be used as a metallic mixing vehicle.

VP-135 Overprint Clear may be used as a top coat for extra long-term protection. Print through a 230 mesh.

VP-173 Clear may be added if improvement in edge definition is necessary.

VP-186 Anti-Scuff may be added to provide a rub-resistant ink surface. Do not exceed 5% by weight.

CARE52 Gel Retarder is ideal when printing fine line copy and halftones to optimize print detail. Up to 3% by weight addition will help to prevent screen dry-in without changing drying characteristics. Over 3% may require additional drying time.

VP-183 Extra Slow Thinner may be used in extremely hot and humid shop conditions when on-screen stability is difficult to achieve using the other thinners.

VP-2300 Special Thinner may be used when printing on polycarbonate or PETG to prevent crazing.

VP-172 Flattening Additive may be added to prevent blocking on highly plasticized materials. Do not exceed 20% by weight.

**ADHESION
TESTING**

Cross hatch tape test – use a cross hatch tool or sharp knife to cut through the ink film only. Apply 3M #600 clear tape on cut area, rub down and rip off. Ink should only come off from actual cut areas.

Fingernail scratch test – thoroughly dried ink will resist scratching.

CLEAN UP

Use IMS 301 Premium Graphic Press Wash for cleaning ink off the screen and IMS 201 Premium Graphic Screen Wash prior to reclaiming.

GENERAL GUIDELINES**INK
HANDLING**

All personnel mixing and handling these products must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe ink off with a clean, dry, absorbent cloth (do not use solvent or thinner). Wash and rinse the affected area with soap and water. Consult the VP Series Material Safety Data Sheet for further instructions and warnings.

**STANDARD
PRINTING
COLORS**

The standard printing colors have excellent opacity and flow characteristics.

**HALFTONE
COLORS**

VP Series halftone colors are formulated with high densities in order to have the flexibility to satisfy most process color density requirements.

VP-173 Clear may be added to reduce densities of the halftone colors.

**DEZYNE[®]
MATCH 900
SERIES**

These are monopigmented colors that can be printed straight from the container or used in color matches.

**METALLIC
COLORS**

Metallic pigment may be added to the inks as a component of a color match or to VP-170 Mixing Clear. Due to possible limited shelf life, only mix quantities of metallic ink needed for immediate use.

When inks are to be printed over a metallic color, the overprinting ink(s) must be evaluated for intercoat adhesion over the metallic color before proceeding with the production run. To maximize intercoat adhesion over metallic colors, we recommend that the metallic be printed as late as possible in the print sequence.

**FLUORESCENT
COLORS**

The VP Series Inks are offered in 7 fluorescent colors.

These colors require special considerations due to their high pigment contents. Best results are achieved when printed through a mesh that offers more open area, such as a 355 or 305 PW standard or thin thread mesh. These inks will have the tendency to settle; so high speed mixing is required prior to printing. Cured ink will have a satin finish. Fluorescent colors fade with exposure to ultraviolet light. This includes outdoor exposure as well as UV reactor exposure. It is therefore recommended to adjust art so these colors are the final colors printed on any image.

STORAGE

Store tightly covered at temperatures between 60°-90°F (15°-32°C). Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

COLOR AVAILABILITY

Stock Number	Standard Printing Colors	Stock Number	+Halftone Colors
VP-102	Fire Red	VP-113	Black
+VP-103	Brilliant Red	VP-133	Yellow
VP-105	Permanent Red	VP-153	Cyan
+VP-111	Opaque Black	VP-163	Magenta
+VP-112	Opaque White	VP-173	Clear
VP-124	Vermilion		
+VP-130	Primrose Yellow		+Dezyne® Match 900 Series
VP-132	Lemon Yellow	VP-900	Yellow
VP-134	Medium Yellow	VP-901	Warm Red
VP-135	Overprint Clear	VP-902	Rubine
+VP-142	Emerald Green	VP-903	Rhodamine
+VP-145	Forest Green	VP-904	Purple
+VP-154	Peacock Blue	VP-905	Violet
+VP-156	Brilliant Blue	VP-906	Reflex Blue
+VP-157	Royal Blue	VP-907	Process Blue
+VP-162	Purple	VP-908	Green
+VP-164	Cerise		
+VP-166	Magenta		
VP-170	Mixing Clear		
+VP-211	Extra Opaque Black		+Fluorescent Colors
+VP-212	Extra Opaque White	VP-091	Orange/Red
+VP-610	Orange	VP-092	Green
+VP-611	Red	VP-094	Chartreuse
+VP-613	Cool Red	VP-095	Red
		VP-097	Pink
		VP-098	Orange
		VP-099	Blue

COLOR AVAILABILITY (cont'd)

Additives/Reducers			Transparent Colors
CARE52	Gel Retarder	+VP-108	Transparent Maroon
VP-172	Flatting Additive	+VP-109	Transparent Red
VP-180	Thinner	+VP-129	Transparent Medium Yellow
VP-181	Fast Thinner	+VP-139	Transparent Primrose
VP-182	Slow Thinner	+VP-149	Transparent Green
VP-183	Extra Slow Thinner	+VP-159	Transparent Blue
VP-184	Wash-Up	+VP-169	Transparent Cerise
VP-186	Anti-Scuff	+VP-179	Transparent Orange
VP-2300	Special Thinner (Anti-Crazing)	+VP-199	Transparent Purple
+IMS 201	Premium Graphic Screen Wash		

Nazdar stands behind the quality of this product. Nazdar cannot, however, guarantee the finished results because Nazdar exercises no control over individual operating conditions and production procedures. While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. Users are also responsible for testing to determine that our product will perform as expected during the printed item's entire life-cycle from printing, post-print processing, and shipment to end-use. This product has been specially formulated for screen printing, and it has not been tested for application by any other method. Any liability associated with the use of this product is limited to the value of the product purchased from Nazdar.

+Based on information from our raw material suppliers, these products are formulated to contain less than 0.06% lead. If exact heavy metal content is required, independent lab analysis is recommended.

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