

Renegade GP is a high performance, fast curing, UV screen printing ink specifically formulated for point of purchase applications. GP Series provides printers an ink system for multiple uses of a wide variety of substrates. Renegade GP offers opacity and high gloss while maintaining rapid cure rates. GP provides a durable, high slip surface with excellent outdoor durability.

## Performance Properties

- Adhesion to wide variety of substrates
- Flexible for multi-layer applications/die-cutting
- Non-blocking, high-slip finish for easy handling
- N-VP and heavy metal free
- Superb water and abrasion resistance
- Superior opacity for color trapping

## Recommended Substrates

- ABS
- Coated paper
- Expanded Foam PVC (Sintra®, Celtec®)
- Foam Board
- Fluted Polyolefin's\*
- PETG
- Polycarbonate (Adhesive not Recommended)
- Polyethylene Coated Card Stock
- Polyethylene Sheet\*
- Polystyrene
- Pressure Sensitive Vinyl
- Rigid Vinyl
- Vinyl Banner (1 & 2 sided)

\*With the use of Adhesion Promoter (3% of 1534 or 3% of 11939), Renegade will adhere to fluted polyolefin's such as Coroplast® and polyethylene sheet. Best adhesion forms after a six (6) hour post cure. Either adhesion promoter provides excellent water resistance.

## Curing/Processing Guidelines

Ink will cure well when printed through 355 (140cm) plain weave polyester mesh or finer. GP's optimal cure window of 125 - 150 mJ/ cm<sup>2</sup> 550 - 650 mW/ cm<sup>2</sup> is generally achieved with one 200 watt per inch mercury vapor lamp at a belt speed of 70 - 90 feet per minute (21 - 27m / min). This should provide thorough cure of the product. Cure speeds may vary as thicker material and dark surface colors require more energy. Adhesion should be a minimum of 95% from curing unit with final adhesion developing within six hours of initial polymerization. Coarser fabrics can be utilized, however, cure parameters may need to be adjusted for increased ink film. If a loss of gloss or adhesion due to insufficient cure is noticed, the use of 5 - 10% GP Mixing/Overprint Clear will increase light penetration and improve cure.

## Light Fastness

At full strength and cured properly, GP colors are formulated to withstand up to three years of exterior exposure with clear. ( will chalk after 1 year without clear). Factors that will alter the outdoor durability of the ink include but are not limited to: substrate grade/age, poor cure of the ink film, formulas, directional positioning, ink film deposit, exposure to excessive abrasives and air pollutant care should be taken when reducing the mass tone\* colors with clear or tinting white as this could negatively affect the exterior durability of

the color. Colors that should not be used for outdoor applications are: CMS 164 BS Red, CMS 114 Orange, 180 Warm Red and 131 Brilliant Orange. Automotive grade color alternative recommendations are available by calling our Technical Services Department. \*Mass tone: the full product color without dilution.

## ROLLER COATING

- 21748 SP RC Universal Gloss Overprint Clear

## SCREEN

- 14152 SP GP Solarshield Overprint Clear

## Printing

Mix well prior to use. While supplied in press ready condition, GP may be reduced up to 7% with #1004 Thinner. Care should be taken to print the ink at optimal temperature 70 - 90° F (21 - 27° C). Cool ink will heavier viscosity and will not flow properly. Hot ink will be lower in viscosity resulting in poor definition and decreased opacity.

## Coverage

3,200 to 3,600 square feet per gallon based on ink deposit .40 - .60 mil dependent on color and printing conditions.

## Storage

Care should be taken to store ink in tightly closed containers located in a cool (60-80°F/15-27°C) dark place. With suitable conditions, unopened CYMK in is expected to have a shelf life of approximately twelve (12) months from date of manufacturer, White approximately six (6) months from date of manufacture.

## Metallic's

Use the Metallic Mixing Clear to prepare metallic ink as its increase viscosity helps insure a good particle suspension and extended shelf life.

## Recommended mixing ratios, by weight are:

- 28% gold paste
- 12% silver paste

For optimum coverage and opacity, 280-305 (110 - 120cm) plain weave mesh. Use Solar Shield Clear for extended weatherability and to improve the non-tarnishing properties of the product.

## Additives

- 1004 Thinner - Use up to 7% as needed
- 13973 Cling Modifier at 3% as needed
- 1534 Adhesion Promoter up to 3% as needed
- 11939 Adhesion Promoter, 3% as needed
- 2980 Catalyst, 3% as needed (will gel in 4 hours)

## Precautions

Read the material safety data sheet prior to processing. It contains instructions for precautions to be taken when handling inks. If ink comes

in contact with skin wipe off with a clean, dry cloth (do not use solvent). Wash and rinse the affected areas with soap and water.

### Process Printing

For superior halftone reproduction, halftones are available in a range of density levels. Additional control of density may be achieved with use of GP HT Base. For best results, use 390 (140cm) or finer and a smooth, thin stencil coating should be utilized with process printing.

	Press Ready	High Density	Backlit Density
GP Halftone Yellow	0.90	1.10	1.35
GP Halftone Magenta	1.40	2.05	
GP Halftone Cyan	1.40	1.80	2.20
GP Halftone Black	1.60	2.00	2.25

### Color Availability

Renegade GP is available in twenty opaque standard colors. Custom matches, metallic, fluorescent and transparent colors are obtainable upon request.

GP-101 Primrose Yellow	GP-210 Ultra Blue
GP-111 Lemon Yellow	GP-220 Emerald Green
GP-123 Medium Yellow	GP-225 Forest Green
GP-131 Brilliant Orange	GP-226 Lime Green
GP-135 Vivid Orange	GP-235 Teal
GP-141 Fire Red	GP-240 Purple
GP-151 Scarlet Red	GP-260 Brown
GP-155 Rubine Red	GP-301 Opaque Black
GP-160 Rhodamine Red	GP-311 Opaque White
GP-180 Warm Red	GP-312 Jet Black
GP-190 Process Blue	GP-026 Brilliant White
GP-200 Peacock Blue	GP Mixing/Overprint Clear
GP-205 Reflex Blue	GP Metallic Mixing Clear

### Pantone Matching System® Colors

The nine PANTONE® approved Color Matching System (CMS) shades are used to simulate the PANTONE® Color Specifier colors. Formulas were designed for maximum opacity and are available in book or Imaging Color source Software formats

GP-064 CMS GS Yellow	GP-066 CMS RS Yellow
GP-114 CMS Orange	GP-121 CMS YS Red
GP-164 CMS BS Red	GP-165 CMS Magenta
GP-127 CMS Violet	GP-230 CMS Blue
GP-325 CMS Green	GP Tinting White
GP Shading Black	GP Mixing/Overprint Clear

PANTONE® is a trademark of Pantone, Inc. Portions Pantone, Inc. 1963, 1991

We strongly recommend a preliminary test of printing and curing on the supports intended to use, in order to ascertain exactly the procedure, the working times and the obtained effect. MIX WELL BEFORE USE. Follow the directions on the package, ask for the safety data sheets and always follow the directions contained therein.

**Important** – Only the correct use of the product will allow satisfactory results. For this reason, closely related to the product supplied, Polymeric must decline all direct and indirect responsibility for the proper or improper use of the product. Make certain that product is right for the desired use, work according to the instructions given in our technical data sheets. Before use contact our Technical Service in case of doubt.

### A. Warranty Liability Limited to Purchase and Installation Costs

Notwithstanding anything provided herein or any other written material to the contrary, Polymeric only warrants the purchase price and costs of installation. POLYMERIC SHALL HAVE NO LIABILITY OR OBLIGATION TO ANY USER, BUYER, PURCHASER, DISTRIBUTOR OR OTHER PERSON OR ENTITY FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED, INCLUDING WITHOUT LIMITATION, PERSONAL INJURY, LOSS OF BUSINESS, LOSS OF PROFIT, OR OTHER DAMAGE, whether or not buyer shall have informed Polymeric of the possibility or likelihood of any such damages.

### B. Limitation of Implied Warranty and Fitness for a Particular Purpose

POLYMERIC'S WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO AN IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AN IMPLIED WARRANTY OF MERCHANTABILITY, AND ANY OTHER IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, PERFORMANCE, CUSTOMER USAGE OR TRADE.

### C. A Pretest Prior to Production is Recommended to Ensure Proper Suitability for the Intended Application.