

# SunVetro™ ZGL Technical Data Sheet

SunVetro ZGL Series screen inks are a two-component system designed for printing onto glass, coated metals and ceramics. These inks are suitable for mirroring applications.

## typical characteristics and features

SunVetro ZGL inks are formulated to have the following properties:

- Semi-gloss satin finish
- Excellent adhesion to most coated metals, ceramic and glass
- Suitable for mirroring applications

## technical information and handling

### Substrates

SunVetro ZGL inks dry to a semi-gloss satin finish and exhibit adhesion to most coated metals, ceramics and glass. One common application for these inks is their suitability for mirroring. Prior to mirroring, make sure that SunVetro ZGL inks are sufficiently cured and the printed glass is adequately cleaned with common cleaning agents used in the glass industry. (i.e. Ceroxid).

NoteE: SunVetro ZGL series inks must be processed as a two-component system.

### Colors

SunVetro ZGL inks are available in SunMatch™ blending shades and Euroscale 4-color process inks.

### Metallic inks

For printing of metallic decorative inks, metallic pastes B75 to B79 are available. Metallic pastes must be blended with mixing clear, SunVetro ZGL-B, prior to processing. Approximate mixing ratios by weight as follows:

- 20 – 25% Gold Bronze paste + 75 – 80% SunVetro Mixing Clear
- 10 – 15% Silver Aluminum paste + 85 – 90% SunVetro Mixing Clear

If metallic prints are to be overprinted, an additional 10– 30% of SunVetro ZGL-B is recommended, changing the approximate mixing ratio as follows:

- 15 – 20% Gold Bronze paste + 80 – 85% SunVetro Mixing Clear
- 8 – 12% Silver Aluminum paste + 88 – 92% SunVetro Mixing Clear

Note: Metallic prints tend to oxidize and tarnish when exposed to the atmosphere. The use of a suitable overprint clear will delay this oxidizing process for some time. Pretest overprintability prior to use.

Product Code	Description	SAP Number
SunVetro ZGL-Y30	SunMatch - Primrose	90106628
SunVetro ZGL-Y50	SunMatch - Golden Yellow	90106629
SunVetro ZGL-050	SunMatch - Orange	90860919
SunVetro ZGL-R20	SunMatch - Scarlet	90860909
SunVetro ZGL-R50	SunMatch - Red	90106625
SunVetro ZGL-M50	SunMatch - Magenta	90106617
SunVetro ZGL-V50	SunMatch - Violet	90106626
SunVetro ZGL-B50	SunMatch - Blue	90860663
SunVetro ZGL-G50	SunMatch - Green	90860821
SunVetro ZGL-N50	SunMatch - Blending Black	90106618
SunVetro ZGL-W50	SunMatch - Blending White	90106627
SunVetro ZGL-E50	SunMatch - Mixing Clear	90106615
SunVetro ZGL-B	Metallic Mixing Clear	90871036
SunVetro ZGL-180	Euro Process Yellow	90824010
SunVetro ZGL-181	Euro Process Magenta	90106620
SunVetro ZGL-182	Euro Process Cyan	90106621
SunVetro ZGL-60HD	Opaque White	90104814
SunVetro ZGL-65HD	Opaque Black	90942065
SunVetro ZH/GL	Hardener	90822890
SunVetro ZH/02 GL	Hardener	90815042
SunVetro ZVS	Thinner	90012393
SunVetro ZVH	Slow Thinner	90012391
SunVetro ZD	Retarder	90012352

In accordance with information received from suppliers, the full ZGL series is formulated without heavy metals and complies with: 16 CFR, Part 1303; ANSI Z66, 1-1964; ASTM F 963; CONEG packaging regulations; EC Packaging Waste Directive EC/94/62; EN71m section 3; RoHS 2002/95/EC; WEEE 2002/96/EC; E2003/11/EC.

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## Modification

Prior to processing, SunVetro ZGL inks can be combined with one of the two hardeners listed below, dependent on end-use requirements. All SunVetro ZGL inks are mixed at a ratio of 20 parts ink to 1 part hardener. Subsequent pot-life is approximately 12 hours at room temperature.

SunVetro ZH/GL hardener – good water-resistance is achieved using the SunVetro ZH/GL hardener even when the prints air-dry. However, resistance to various solvents is limited.

SunVetro ZH/02 GL hardener exhibits solvent-resistance and higher gloss using the SunVetro ZH/02 GL hardener. However, good water-resistance can only be achieved when prints are oven-cured at temperatures above 284°F (140°C).

## Drying

When combined with one of the two hardeners and an ink the following ratio should be used. SunVetro Hardener ratio of 20:1, these inks air-dry to a tack-free finish within 20 – 30 minutes and are completely cured after 24 hours. If higher resistance properties are desired, prints should be oven-dried for 30 – 60 minutes at 284° – 300°F (140° – 149°C).

## Screen mesh

Recommended to use screen mesh between 200 – 305 / inch monofilament polyester mesh.

## Stencil

Direct photoemulsion, capillary film, indirect stencils or solvent-resistant, hand-cut films.

## Squeegee

Medium to hard durometer urethane squeegee is recommended.

## Coverage

When printed through a 230 / inch (90 / centimeters) mesh, one gallon of SunVetro ZGL will cover approximately 1200 square feet.

The information contained in this technical data sheet is only a recommendation and may need to be altered to suit the conditions and efficiency of the equipment employed. Our products are not designed for use in conjunction with those of any other ink maker or similar supplier unless agreed to in writing.

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## wash-up

SunVetro ZGL series inks may be cleaned from screens and processing equipment with any suitable screen wash, such as SunVetro VL Wash.

## packaging

SunVetro ZGL inks are available in one (1), one liter is equivalent to 1.06 US quarts. Five (5) liters are available upon request.

## storage considerations

If SunVetro ZGL inks are stored in temperatures between 40° – 90°F (5 – 32°C), these coatings have a shelf-life of thirty-six (36) months.

## safety, health and environment

SunVetro ZGL inks should be used in accordance with normal standards of industrial hygiene and good manufacturing practice. Please refer to the supplied Material Safety Data Sheet for specific information. Material Safety Data Sheets will be supplied.

Printing inks, coatings and printing residues should be disposed of in accordance with local and national regulations.

