

Product: ZGL**Series: ZGL™**

DESCRIPTION: Z/GL Series screen inks are a **two-component** system designed for printing onto glass, coated metals and ceramics. Z/GL inks are suitable for mirroring applications.

NOTE: Pretest all substrates prior to use in production.

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

NOTE: Z/GL series inks must be processed as a two-component system.

COLORS: Z/GL inks are available in SunMatch™ blending shades and Euroscale 4-color process inks.

MODIFICATION: Prior to processing, Z/GL inks must be combined with one of the 2 Hardeners listed below, depending on end-use requirements. All Z/GL inks are mixed at a ratio of 20 parts ink to 1 part hardener. Subsequent pot-life is approximately 12 hours at room temperature.

HARDENERS:

ZH/GL Hardener – Excellent water-resistance is achieved using the ZH/GL Hardener even when the prints are air-dried. However, resistance to various solvents is limited.

ZH/02 GL Hardener – Prints exhibit excellent solvent-resistance and higher gloss using the 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 2 hardeners at an ink:hardener ratio of 20:1, Z/GL 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).

METALLIC INKS: For printing of metallic decorative inks, metallic pastes B75 to B79 are available. Metallic pastes must be blended with mixing clear, Z/GL-B, prior to processing. Approximate mixing ratios by weight should be:

20-25% Gold Bronze paste + 75-80% Z/GL-B Mixing Clear

10-15% Silver Aluminum paste + 85-90% Z/GL-B Mixing Clear

If metallic prints are to be overprinted, an additional 10-30% of Z/GL-B is recommended, changing the approximate mixing ratios, by weight, to:

15-20% Gold Bronze paste + 80-85% Z/GL-B Mixing Clear

8-12% Silver Aluminum paste + 88-92% Z/GL-B 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.

NOTE: Pretest overprintability prior to use

COVERAGE: When printed through a 230/inch (90/cm) mesh, one gallon of Z/GL inks will cover approximately 1200 square feet.

SCREEN MESH: 200-305/inch monofilament polyester mesh. **Sun Chemical has the mesh best suited for your particular printing requirements. Contact your local Sun representative for details.**

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

SQUEEGEE: Medium to hard durometer urethane squeegee. **Sun Chemical has the best squeegee for your particular application. Contact your local Sun representative for recommendations.**

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WASH-UP: Z/GL Series inks may be cleaned from screens and processing equipment with any suitable screen wash, such as VL Wash. . **Sun Chemical has a variety of wash-ups including ECO friendly screen washes available for your particular needs. Contact us for *all* of your pre and post-press chemical requirements.**

PACKAGING: Z/GL inks are available in 1 and 5 liter containers. 1 liter is equivalent to 1.06 US quarts, 5 liters is equivalent to 1.32 US gallons.

HEALTH AND SAFETY: As with all inks, gloves and safety goggles should be used when handling this product. For more complete information, refer to the relevant **Material Safety Data Sheet**.

SunMatch™ Blending Colors:		Process Colors:	
Z/GL-Y30	Primrose	Z/GL-180	Euro Process Yellow
Z/GL-Y50	Golden Yellow	Z/GL-181	Euro Process Magenta
Z/GL-O50	Orange	Z/GL-182	Euro Process Cyan
Z/GL-R20	Scarlet	Opaque Colors:	
Z/GL-R50	Red	Z/GL-60HD	Opaque White
Z/GL-M50	Magenta	Z/GL-65HD	Opaque Black
Z/GL-V50	Violet	Hardeners:	
Z/GL-B50	Blue	ZH/GL	
Z/GL-G50	Green	ZH/02 GL	
Z/GL-N50	Blending Black	Modifiers:	
Z/GL-W50	Blending White	ZVS	Thinner
Z/GL-E50	Mixing Clear	ZVH	Slow Thinner
Z/GL-B	Metallic Mixing Clear	ZD	Retarder
In accordance with information received from suppliers, the full Z/GL 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; EN71, section 3; RoHS 2002/95/EC; WEEE 2002/96/EC; E2003/11/EC.			

All information on this data sheet is based on Sun Chemical laboratory tests and experience in print shops. Procedures and directions for use of Sun Chemical products (including printing and after-treatment) must be considered as recommendations only, with no warranties expressed or implied. The user of the products described herein is solely responsible for determining suitability of any Sun Chemical product for the particular application. Sun Chemical recommends that all products be pre-tested prior to full-scale production use. This data sheet supersedes all previous publications. Dec. 2009