



Davis International, Inc.

388 Mason Road, Suite 1A, Fairport, New York 14450

585-421-8175 Fax 421-8707

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UV, solvent and plastisol resistant Diazo-UV-polymer photoemulsion

Davis **GDC** is a high solids emulsion used for the production of high-quality, UV, solvent and plastisol resistant stencils. Superior resolution and excellent mesh bridging make it suitable for printing the finest half-tones, lettering and designs. Davis **GDC** is uniquely formulated for ease of coating. Its tack-free surface offers quick, efficient "peel" during printing. It is universally suitable for nearly all screen printing applications.

SENSITIZING

With **GDC DIAZO**

DEGREASING

Before coating it is recommended to clean and degrease the screen mesh to achieve reproducible coating results. Ensure proper tension of the screen mesh. After thorough rinsing with water and drying, the screens are ready for coating.

COATING

Coating can be done manually or by machine. The use of the coating machine is especially recommended because it achieves a reproducible coating result. If coating is done manually ensure that the mesh openings are filled from the substrate side (generally 2-3 coats). Only then begin with the emulsion build-up from the squeegee side (1-3 coats) depending on the print requirements.

Davis **GDC** high solids content offers rapid build with few coats, fast drying, and smooth stencils.

DRYING

The screen must be dried thoroughly before exposing to achieve the highest ink resistance. This is preferably done in a dust-free drying-chamber with fresh-air inlet at temperatures of between 95-104° F (35 - 40°C).

EXPOSURE

The stencil is created by UV-light hardening of the non-printing emulsion area. Expose with blue actinic light at a wavelength of 350 - 420 nm. A metal halide lamp provides the best results.

Due to the many variables that determine the actual exposure time, exact exposure times cannot be given. Optimum copying results can only be achieved by trials (step exposure), or with the use of an exposure calculator.

For maximum chemical resistance and mechanical durability, choose an exposure time that is as long as possible, while still achieving the resolution required for the job. This is especially important when using water based printing inks.



A DUALCURE EMULSION FROM **DAVIS**



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Guide values:

The following approximate exposure times were established using a **5,000 Watt metal halide lamp at a distance of 40 inches** and coating with a round edged coating trough twice from the substrate side followed by twice from the squeegee side (2-2).

Mesh Count tpi (tpcm)	Mesh Color	Coating Technique	Exposure Time
156-64 (60-64)	Yellow	2-2	~120 seconds
305-34 (120-34)	Yellow	2-2	~60 seconds

NOTICE

Please note that the printing resistance of an emulsion is influenced by many variables e.g. mesh, coating technique, drying, exposure time, etc. Furthermore, a lot of printing media and printing machines are being used in practice, which has not all been tested by us. Therefore, please accept our offer and test the suitability of our products by asking for free-of-charge emulsion samples, as we can only guarantee a constant quality according to our own working conditions.

COLOR

Unsensitized: blue Sensitized: green

VISCOSITY

Approx. 7.000 mPas (DIN 53019, D = 100 s⁻¹)

HMIS RATINGS

Health - 1
Flammability - 0
Reactivity - 0

**HEALTH HAZARDS/
ENVIRONMENTAL
PROTECTION**

Please follow further information given in the material safety data sheet.

STORAGE

Unsensitized: 1 year (at 68° - 77°F, 20 - 25°C). Protect against freezing.
Sensitized: Approximately 6 weeks (at 68° - 77°F, 20 - 25°C)

Screens coated in advance: approx. 4 weeks (at 68° - 77°F, 20 - 25°C and in complete darkness).