

## **G25, G25J & G25S GRAVURE PIGMENT PAPERS** (CARBON TISSUE)

### **PRODUCT DESCRIPTION**

These gravure pigment papers are distributed as unsensitised coatings on high quality 150 $\mu$  photographic paper. The coating is approximately 42 $\mu$  thick and comprises a pigmented plasticised gelatine intended for bath sensitising.

Dimensional stability is  $\pm 0.15\%$  at 21°C/50-70% RH and wet stretch is 2.0% max TD and 0.1% max MD.

### **APPLICATIONS**

Gravure pigment papers are used for the production of photo-mechanical etching resists adhered to the surface of copper plates and cylinders. On application of an etchant, an intaglio image is etched into the copper surface providing a gravure printing forme. In particular the G25 products are ideally suited for packaging printing and general commercial work, as well as high quality detailed work such as stamp printing.

The products are suitable for all climates and can be adapted to a wide range of processing conditions.

### **FEATURES**

The G25 series products are manufactured from a high grade photographic gelatine of low swelling characteristic with high melting point suitable for use in all climates. They have been formulated with high contrast to be tolerant of a wide range of sensitising conditions without adversely affecting product ageing. G25S is a slightly lower contrast product having shorter overall etch times.

All products feature excellent adhesion to copper with prolonged etching (for deeper cells) without resist collapse. G25 products have a good exposure latitude without screen wall distortion and exposure may be optimised for single bath etching.

Middle tone cells are generally shallower than G35 series products with a more gradual incline in the shadow region.

### WORKING INSTRUCTIONS & SAFE HANDLING

A photographic quality paper coated with a gelatine containing inorganic pigments, humectants and surfactants. The product contains less than 0.25% of a protein protecting preservative.

Store in a cool dry environment. Wash hands after repeated use.

Use Yellow Safelights or Amber Filters

Sensitising is recommended in a 3% pure potassium dichromate solution at  $11^{\circ}\text{C} \pm 1^{\circ}$  with a pH of range 5.3 - 5.5. The immersion time should be 3 minutes exactly. Squeegee onto a 'Plexiglass' glazing sheet which is scratch free and degreased removing all surplus dichromate. Dry the sheets at  $20 - 22^{\circ}\text{C}/58 - 62\% \text{ RH}$ , allowing ca. 90 minutes for drying with even distribution of air.

Store the dried sheets at 6% moisture content in sealed containers at  $-18^{\circ}\text{C}$  for long periods or  $+5^{\circ}\text{C}$  for overnight storage. Reconditioning of 4 hours is necessary in the former instance, and half an hour in the latter prior to opening the container.

Open in a light-safe room and allow to condition, positioning the sheets on Formefilm with appropriate registration holes. Expose emulsion side to a white line screen in a vacuum frame using a long wavelength UV lamp (417 nm). Measurements should be carried out to ensure correct exposure level. Details are given in Autotype technical bulletins.

Expose emulsion side to the diapositive montage in a vacuum frame. This may involve either a long or short wavelength UV lamp, the latter being more common (365 nm). Transfer the exposed sheet to a precleaned copper surface which is chemically prepared. The water must be pure at  $20 - 22^{\circ}\text{C}$ , with a high pressure roller of ca  $80^{\circ} \text{ IRH}$ . The cylinder should rotate at 3 - 4m/min and water should essentially be kept to a minimum.

Remove the stabilising film is used without plucking the paper and immerse the cylinder in alcohol (IMS 66 OP 80%) for at least 2 minutes. This should be followed by water at  $45^{\circ}\text{C}$  with vigorous even agitation until the paper is removed. Continue development for at least 8 minutes, followed by cooling at  $20^{\circ}$  until cylinder temperature stabilises. Soak the resist in 80% industrial alcohol for 5 minutes, and dry at ambient air temperature. Allow at least 2 hours conditioning at  $21^{\circ}\text{C} \pm 1^{\circ}\text{C}/60\% \pm 2\% \text{ RH}$  prior to etching. Stage areas not required for etching with Autolac. Etch the resist in a good quality proprietary etchant to the required reproduction curve, ensuring even wetting and agitation of the etchant.



# Product Data

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## HAZARDS & WARNINGS

No report of any toxic symptoms in persons handling papers in accordance with published instructions. The product contains a preservative and should not be ingested. It is also strongly advised that hands are washed after handling, or gloves are used.

**NOTE: Pigment papers are normally sensitised in a potassium dichromate solution which is TOXIC. After sensitising the product acquires the toxicity of the sensitiser which is listed on a separate data sheet.**

## FIRE PRECAUTIONS

The products only burn with difficulty.

## SPILLAGE

N/A

## FIRST AID

In case of accidental ingestion, call a doctor and advise him of the nature of the paper.

## SHELF LIFE & STORAGE

Store in protective packaging in a cool dry environment (ideally 20 - 22 °C/60 ± 2% RH). It is imperative that the product is kept away from chemicals which may react with gelatine, eg formaldehyde, alum, etc. Also eliminate any material which may contain free formaldehyde such as certain adhesive tapes, plywood, chipboard etc. Keep away from sources of heat or possible steam or water contact.

See above for storage of sensitised product.

## ENVIRONMENTAL/DISPOSAL

Conventional solid refuse disposal. The product contains gelatine which has a high Biological Oxygen Demand, and if disposed by water dissolution a figure of 0.54 mg O<sub>2</sub>/mg is applicable (to unsensitised, unexposed product ONLY).

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## PACKAGING

Supplied in 20 m rolls of widths 95, 105 and 124 cm. (25 rolls to Trade Pack).

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