

**Procat Screen Ink**

Code Ref: 435

**Prolon Screen Ink**

Code Ref: 477

**Polyflex Screen Ink**

Code Ref: 489

technical information and application instructions

**Product Information**

This trio of inks has been developed for printing directly onto the wide variety of nylon materials that are used for applications like umbrella panels, flags, travel bags and sports outerwear.

Once thoroughly dry (24 hours) these inks – appropriately chosen for the substrate – show excellent adhesion, scuff resistance and water resistance.

Can be formulated for extended outdoor use on request.

**Application Information / Substrates**

In this regard initial testing will be required due to the wide range of materials and multitude of suppliers.

**Procat** This is a two-pack system and appears most suitable for waterproofed nylons as used for umbrellas and flags.

**Prolon** Is a more flexible system than Polyflex and is suited to most other materials.

**Polyflex** Is the recommendation for very coarsely woven materials.

**Application Information**

*While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. See full disclaimer at end of document.*

**Mesh** 41-120T monofilament polyester meshes are recommended.

**Stencil** All direct photo emulsions, photo stencil films and hand cut stencil films that are solvent resistant.

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<b>Squeegee</b>	70 to 80 durometer polyurethane blades as well as triple durometer blades that produce an even ink deposit.
<b>Coverage</b>	20-50 sqm/kilo depending on mesh used.
<b>Printing</b>	All series use D564-S069 – PROLON/PROCAT/POLYFLEX THINNERS and where necessary D564-S064 – UNIVERSAL RETARDER.
<b>Drying</b>	<p>These inks dry by solvent evaporation. Air-dry will take 20 – 40 minutes for a single ink layer. On coarse materials it is common to print 2-3 layers of inks – this will take many times longer to completely dry – do not confuse surface dry with through dry.</p> <p>May be jet dried – use minimum heat on multilayer prints to avoid trapping solvent in the lower layers.</p>
<b>Cure</b>	PROCAT is a catalytic system and 24 hours after printing must be allowed for full cure to develop.

**Clears / Extenders / Additives**

<b>Thinner</b>	D564-S069 PROCAT / PROLON / POLYFLEX THINNERS.
<b>Retarder</b>	D564-S004 UNIVERSAL RETARDER – beware of using excessive amounts when doing multilayer prints as the drying time will be considerably increased. Do not stack for 24 hours to ensure thorough drying and avoid blocking.
<b>Catalyst</b>	D590-A104 is used with PROCAT. The mixing ration is 2 parts PROCAT ink / 1 part CATALYST. Mix well in quantities that will be used in 2 – 3 hours. Never return catalysed ink to the original tin – this will cause the entire contents to react and gel.

**Mixing / Overprint Clear**

D435-A025 / D477-A019 / D489-A258 (as the system) Mixing/Overprint Clear may be used to reduce colour strength or as a metallic mixing varnish. (See metallic colours).

**Metallic Colours** Metallic pigments may be added to the inks as a component of a colour match or to D435-A025 / D477-A019 / D489-A258 (as the system) Mixing/Overprint Clear.

Due to possible limited shelf life, only mix quantities of metallic ink needed for immediate use. Leafing pigments may show incompatibility to the ink.

Excessive amounts of metallic powder will degrade adhesion and the overall performance of the printed ink.

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**Clean Up** Use N660-S344 Screen Wash.

PROCAT is a catalysed system, it is important to clean the screens thoroughly as soon as printing has stopped – even for tea / lunch breaks thoroughly clean the screen as cured ink will block the screen and make it unusable.

**General Guidelines**

**Ink Handling** All personnel mixing and handling inks must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe off with a clean, dry, absorbent cloth (do not use solvent or thinner). Wash and rinse affected area with soap and water. Consult the PROCAT / PROLON / POLYFLEX SDS for further instructions and warnings.

**Adhesion Testing** **Cross hatch tape test** – apply 3M#600 clear tape on cut area, rub down and rip off. Ink should only come off from actual cut areas.

**Fingernail scratch test** – thoroughly dried ink will resist scratching.

**Storage** Store tightly covered at temperatures between 15°C - 32°C. Ink taken from the press should not be returned to the original container. Store separately to avoid contaminating unused ink.

Shelf life of unopened cans is 5 years from date of manufacture. Stir well before use.

PROCAT catalyst is moisture sensitive – shelf life 6 months.

**caution**

Please proof this ink, reduced to the consistency you wish to adopt, on a sample of the ACTUAL SUBSTRATE you will be printing BEFORE starting a production run.

Give the proof 24 hours to post cure then check for: Abrasion resistance, adhesion, print appearance and correctness of colour. The adequacy of this ink in these properties cannot be fully established on laboratory equipment on a small scale.

**Keep away from heat and open flame. Use with adequate ventilation. Avoid prolonged or repeated contact with skin. Avoid prolonged breathing of vapour or spray mist. Keep container closed when not in use.**

*GL stands behind the quality of this product. GL cannot, however, guarantee the finished results because GL exercises no control over individual operating conditions and production procedures. While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. Users are also responsible for testing to determine that our product will perform as expected during the printed item's entire life cycle from printing, post-print processing, and shipment to end-use. This product has been specially formulated for screen printing, and it has not been tested for application by any other method. Any liability associated with the use of this product is limited to the value of the product purchased from GL.*

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Last date amended: 7 February 2023