



Reflec 200 Retro-reflective Screen Inks

Reflec 200 is a range of water-based retro-reflective inks for textiles. The inks contain millions of aluminium coated glass beads which reflect light back to its source. They can be used to produce high visibility prints to enhance personal safety, or to add innovative effects to fashion and promotional clothes. The Reflec range can be used uncatalysed for printing onto cotton fabrics or catalysed when extra adhesion or resistance are required.

Product Range

Reflec 200:

RY242	Reflective 242
RY243	Super Reflective 243
RY244	Metallic Reflective 244
RY386	Catalyst 200

Inks available in 1 and 5 kg packs.

RY386 Catalyst available in 500g packs.

Retarder

ZE592 S303 WB Retarder

Available in 1, 5 & 25 ltr. containers.

Product Descriptions

Reflective 242 - Standard reflective ink with an optimised blend of beads to produce reflective colours by the addition of pigment concentrates.

Super Reflective 243 - Super reflective ink with maximum coated bead content.

Metallic Reflective 244 - Standard reflective ink with addition of metallic powder to maximise opacity.

Clear Extender Base 245 - Extender base which contains uncoated glass beads. These bases can be added into inks from their respective ranges but reflectivity will be reduced. See also section 'Coloured Reflective Prints'.

Catalyst 200 - Catalyst for use in the 200 range of inks to permit ambient curing and maximise adhesion on synthetic fabrics.

Printing/Co-use with Other Inks

Reflec inks will not wet-on-wet print and therefore should be printed last in the print sequence.

For colour matching, up to 5% of colourant such as TK Pigment Concentrate can be added.

When catalysed, Reflec 200 can be used to overprint a flash-cured plastisol. Prints produced in this way may have reduced reflectivity. **It is advisable to position the screen containing the reflective ink as far away from the flash cure station as possible.**

In hot shop conditions an addition of 2-5% S303 WB Retarder can be added.

Drying and Curing

The Reflec 200 range requires the addition of RY386 Catalyst 200 to achieve maximum adhesion on synthetic fabrics and permit ambient curing.

Main Characteristics

Drying

140°C for 3 minutes.

Catalysed: Ambient, Touch Dry in 15 minutes. Full Cure, 48 hours. Maximum adhesion requires addition of 2% Catalyst 200. See section 'Drying & Curing'

Thinning

If necessary, thin with up to 5% water or ZT635 WB Flow Thinner.

Wash-up

Wash up with water. Dried in ink may be washed out with ZT639 Seriwash Universal Screen Wash and at end of print run, before decoating, clean screens with Serisolve MC.

Mesh

No. 43 or coarser for T-shirt fabrics.

No. 62 for woven or non absorbent fabrics.

Stencil Type

Stencils should be water resistant.

Recommended: Dirasol 916 or Dirasol SuperTex.

Treat with Sericure Stencil Waterproofing Agent or Dirasol Super Hardener for maximum stencil life.

Coverage & Mesh No.

Approx 10-12 m²/kg. No. 43 mesh.

Applications/Fabrics

Most fabrics typically used in the manufacture of T-shirts, sweatshirts and sportswear.

Catalysed: Heavy duty, synthetic fabrics, used in the manufacture of sports bags, jackets and sports equipment.

Product Range

Reflec inks are available in standard or super reflective versions, a metallic silver reflective base and a special extender base.

The reflective bases can be tinted using pigment concentrates to produce prints which have colour in daylight and can reflect that colour in appropriate conditions.

Properties

Highly reflective with very good wash fastness properties. Soft handle.

WARNING:

Reflec 200 should not be mixed with other inks.

IMPORTANT:

Stir well prior to every use. Users must ensure that the Reflec inks meet their requirements for adhesion and fastness and reflectivity prior to embarking on a production run.

The catalyst should be mixed in the following ratio:

Reflec 200 Inks - 98 parts
Catalyst 200 - 2 parts

The ink film thickness, fabric weight and drying equipment have a direct effect on the cure schedule required. It is essential to confirm suitability of fabric and ink prior to commencing production.

Catalysed inks have a pot life of approximately 8 hours. Catalysed ink remaining at the end of a print run should be disposed of appropriately.

Coloured Reflective Prints

When used as supplied, the Reflec ink range produces prints which reflect as white/silver.

Coloured reflective prints can be produced by addition of a colourant such as TK Pigment Concentrates.

Optimum results are produced by mixing up to 5% concentrate into the Reflective 242 ink as its reflectivity has been optimised for this purpose.

TK Concentrates can also be mixed into the Super Reflective and Metallic Reflective inks. The prints will appear coloured under daylight conditions, but will reflect strongly white/silver under appropriate conditions.

High Opacity Prints

For high opacity prints on dark garments, Metallic 244 is recommended.

Alternatively, it is possible to print any of the inks in the 200 range catalysed over a flash-cured white plastisol provided it is fully cured afterwards.

Resistance Properties

Reflec inks have good resistance to washing at 40°C and may be dry cleaned.

Prints can be tumble dried and ironed at a low setting.

IMPORTANT: All resistance properties must be confirmed prior to commencing production.

Storage

All Reflec inks should be stored in cool conditions. Exposure to temperatures in excess of 30°C will reduce the shelf life.

Safety & Handling

Reflec 200:

- Is formulated to be free from any (toxic) carcinogenic, mutagenic or reprotoxic chemicals.
- Does not have a flashpoint and are therefore exempt from the Highly Flammable Liquid Regulations.
- Should be stored away from heat.
- Contains barium and therefore should not be used on objects liable to be sucked or chewed by children.
- Protect from frost.

RY386 - Reflec Catalyst 200

- Contains isocyanate and should not be used by persons suffering from bronchitis or asthmatic symptoms.

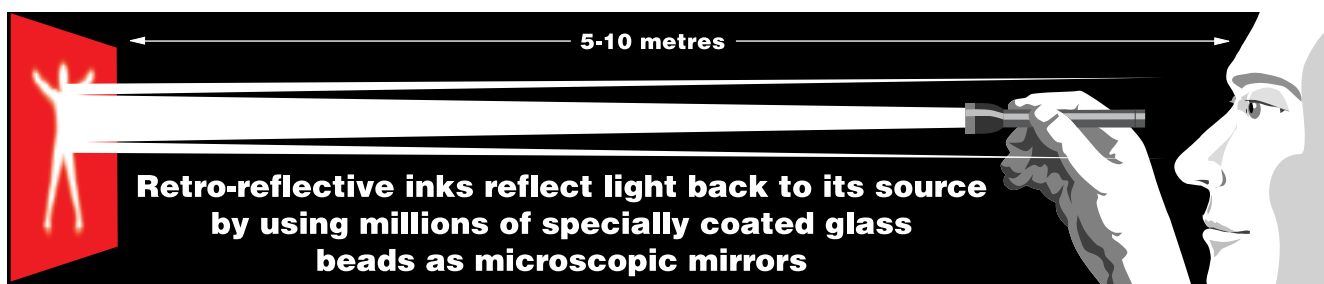
Environmental Information

Reflec 200:

- Does not contain ozone depleting chemicals as described in the Montreal Convention.
- Is formulated free from aromatic hydrocarbons which are known to have an adverse effect on the environment.
- Is water-based and therefore considerably reduce any adverse effect of solvents on the environment.

How to View Reflective Prints

- Reduce room lighting
- Use a bright torch with focused beam
- Look along the beam of light as shown
- View at a distance of 5-10 metres



The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

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More than ink...Solutions.



Sericol Limited Pysons Road Broadstairs Kent CT10 2LE England
Telephone: (01843) 866668 Fax: (01843) 872074

UK Sales - Tel: (020) 8391 8010 Fax: (020) 8391 8008
Email: UKsales@Sericol.com

Customer Service Centres - Tel: 0845 084 89 89
Birmingham, Bristol, Broadstairs, Gateshead, Glasgow,
Leeds, London-North, London-South, Warrington.

Technical Helpline - Tel: 0845 770 80 70

Export Sales
Pysons Road Broadstairs Kent CT10 2LE England
Tel: +44 (0)1843 866668 Fax: +44 (0)1843 872122
Email: Exportsales@Sericol.com

www.sericol.com