



PRODUCT GROUP 300

Series 320-PCxx/05

Photochromatic Inks



By means of UV-light (sunlight or UV-blacklight, 365 nm), photochromatic inks react with a reversible color change. The UV-light is changing the stereo-chemical structure of the color molecules and therewith a different absorption of the light occurs. Against ordinary pigments, which do only reflect part of the light, photochromatic pigments absorb part of the light and let the remaining light go through. Especially on a pale (preferably on a white substrate), the remaining parts of the light are being reflected by the substrate and the element seems to be multicolored. A photochromatic ink can also change its color on a dark substrate, if a supplementary pigment is added to it.

Photochromatic dyes are instable on a long term basis. This means, the balance of the two colored structures slowly moves towards the colored condition. The longer they are exposed to the UV-light, the less they return into the colorless condition. After being exposed to the sunlight for a few months, they completely loose their ability to change color. However, being exposed to places where they are not permanently exposed to the UV-light, they keep their ability to change color for years.

Following articles are available:

Series 320-PC08/05	Photochromatic Ink, yellow	Series 320-PC20/05	Photochromatic Ink, magenta
Series 320-PC21/05	Photochromatic Ink, violet	Series 320-PC26/05	Photochromatic Ink, blue



SUBSTRATES

Hard-/ soft PVC	Polyester coated	Paper and paperboards
Polycarbonate	Coatings	Polystyrene, ABS and SAN



USE

Application	Graphical screen printing, partially functional coatings (advertisements)
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PROPERTIES, PROCESSING, DRYING AND MESH

Mesh	77-55 PET 1000
Drying / Curing	Jet / air
Further Processing	Stamping, cutting, embossing



ADDITIVES

Thinner	Series 300-017	Addition Ratio	10-15% by weight
Retarder	Series 300-018	Addition Ratio	10-15% by weight



VARIOUS

Delivery Conditions	1 kg / 5 kg / 20 kg
Other	Stir well before use



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Disclaimer

Please thoroughly read the Material Safety Data Sheet (MSDS) prior to processing. The Material safety Data Sheets according to 91/155/EWG form, contain indications of hazardous ingredients. Exposure levels and instructions for precautions when processing, handling and storing as well as first aid. The information given in the MSDS refer to the processing as described within this technical leaflet. Above data are based on laboratory tests and field experience. All therein contained statements are to the best of our knowledge without any obligation from our side and do not discharge from testing the product by yourself. In doubtful cases, you are kindly requested to either perform your own tests or refer to our technical staff. Application, use and processing of the delivered products are beyond our control and are therefore at your own risk and responsibility. Printcolor is thus free from any guarantees or liabilities. In cases of justified complaints, Printcolor can only be made liable for the counterpart of the utilized ink system. Adding not stated products or foreign / competitors products, is solely at your own risk and liberates Printcolor of any later calls; especially in cases when damages occurred and which have been caused through use of products of foreign type. This leaflet replaces all former issues. (12/2008)