

Series 382-PCxx/05

Solvent based Photochromic Inks easyCARD

Photochromic inks react to UV radiation (sunlight or black light) with a reversible color change. The UV rays change the stereochemical structure of the dye molecules and thus their absorption behavior. Compared to conventional pigments which reflect part of the light, photochromic dyes are absorbing a part of the light, while the rest passes through. Especially on a bright white substrate the remaining light components are reflected from the background and the surface appears colored. If the photochromic ink is given an additional pigment, it can also switch color on a black background.

Photochromic dyes are not suitable for outdoor use as they are unstable under the continuous exposition to UV light. The balance of the two different colored structures is increasingly shifting to the side of the colorless condition. However, at places with no permanent UV radiation the effect will last over a long time.

When manufacturing plastic cards, the influence of the used overlay foils to absorption of the UV light has to be checked. Otherwise, it may be possible, that the photochromic effect will strongly be influenced negatively.

Please note that the photochromic colors of Printcolor are high-priced products of highest quality, which are not comparable with other standard effects. The pigmentation offers sensational reactivity and even when using fine meshes, still a high color intensity. The effect can be mitigated by the addition of varnish.

Product range

Series 382-PC08/05	Photochromic ink, yellow	Series 382-PC21/05	Photochromic ink, violet
Series 382-PC20/05	Photochromic ink, magenta	Series 382-PC26/05	Photochromic ink, blue

Specifications

Thinner	Series 300-017
Addition ratio	10-15 % by weight
Retarder	Series 300-018
Addition ratio	10-15 % by weight
Hardener	-
Addition ratio	-
Cleaner	Please notice the TDS of the corresponding ink series (www.printcolor.ch/tds).
Mesh	77.55 up to 120.34
Drying	Please notice the TDS of the corresponding ink series (www.printcolor.ch/tds).
Substrates	Please notice the TDS of the corresponding ink series (www.printcolor.ch/tds).
Indoor use / outdoor use	Indoor use only.
Further processing	Please notice the TDS of the corresponding ink series (www.printcolor.ch/tds).
Over printing	-
Delivery conditions	1 kg / 5 kg / 25 kg
Shelf life	24 months
Others	-

Important information: Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. This is not meant as an assurance for certain properties of the products nor their suitability for each application. You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The selection and testing of the ink for specific applications is exclusively your responsibility. Should, however, any liability claims arise, such claims shall be limited to the value of the goods delivered by us and utilized by you with respect to any and all damages not caused intentionally or by gross negligence. (T12 / 07/2015)