

Series 590-PEQxx

UV Phosphorescent Ink, Economy Quality

Series 590-PHQxx

UV Phosphorescent Ink, Security Quality

The glow-in-the-dark settings of Series 590-PEQxx and Series 590-PHQxx belong to the group of phosphorescent ink systems. When excited by artificial or daylight, the contained functional substances in the excitation centres are raised to a higher energy level. These excitation centres consist of foreign atoms which are incorporated in the crystals of the phosphorescent pigment. The longer and more intensive the excitation, the higher the light yield. However, once saturation is reached, stronger charging is not possible. After this storage phase, the electrons begin to fall back in their ground state and thereby emit energy in the form of visible light.

Series 590-PEQ00 has a special feature which distinguishes it from common afterglow products: the unique, white body color. This new development allows a virtually contrast-free, visually neutral pre-print; ideal for subsequent overprinting with process and glaze inks, also in offset.

As no chemical change occurs during a charge-discharge-cycle, Series 590-PEQxx and 590-PHQxx/ECO theoretically retain their afterglow characteristics indefinitely. A reduction in light intensity only happens very slowly, almost imperceptibly. It is important to avoid prolonged contact with water or high humidity, as this causes the formation of a hydroxide layer which harms the luminous intensity and can lead to the destruction of the printed layers in the long term. However, in the planned target area of print finishing, such conditions can rather be ruled out.

The phosphorescent systems Series 590-PEQxx and Series 590-PHQxx/ECO do not contain any radioactive or toxic substances. We distinguish between the classifications PEQ: Economy Quality and PHQ: Security Quality.

The PEQ settings are characterised by fast charging and relatively short-term discharge with strong luminance. The price level is low, and the settings are typically used for acquisition or advertising materials.

The PHQ versions are a bit slower regarding the charging mode, but the afterglow is intense and long-lasting, usually the whole night. In the field of effect finishing such systems are applied to jigsaw puzzles, stickers or packaging in a value-enhancing way.

The following articles are available:

- Series 590-PEQ00 Phosphorescent ink, economy quality, white
- Series 590-PEQ47 Phosphorescent ink, economy quality, green
- Series 590-PHQ47/ECO Phosphorescent ink, security quality, green
- Series 590-PHQ49/ECO Phosphorescent ink, security quality, blue

Specifications

Thinner	Ready to print
Retarder	Ready to print
Cleaner	Series 500-URS
Mesh	43.80 to 77.55
Curing	300-350 mJ/cm ² (Technigraf Integrator)
Substrates	Self-adhesive PVC foil, cardboard, paper, offset, OPP laminate
Indoor / outdoor use	Indoor; outdoor with protective varnish
Further processing	Punching, cutting, embossing
Available quantities	1 kg / 5 kg / 20 kg
Shelf life	12 months
Others	Stir well before use, protect from direct light.

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 (T30 / 09/2020).