

Photochromic Lacquer (Nail Polish) Technical Data

Description

Photochromic lacquer (Nail Polish) contains reversible photochromic dyes stabilized in lacquer base. Photochromic lacquers are available in various bases for different appearances. Color options include colorless to color, as well as color to color. All available color options are listed below. Photochromic lacquers become activated upon exposure to UV light. They respond to natural sunlight and also artificial light sources of 365nm light.

Special Care and Storage / Handling Instructions

Photochromic lacquers are most stable when stored away from heat and light. Store below 25°C. Do not allow to freeze. Long term exposure to UV light will degrade the photochromic properties. A shelf life of 6 to 9 months is expected provided that the material is stored in a cool and dark environment. Storage longer than 6 to 9 months is not recommended. It should be noted that there are differences in performance of the various colors so that each should be thoroughly tested before commercial application. Consult product MSDS prior to use.

Base	Inactivated Color	Activated Color
Clear	None	Purple
Clear	None	Red
Clear	None	Orange
Clear	None	Yellow
Clear	None	Plum
Clear	None	Copper

Pearl	None	Purple
Pearl	None	Red
Pearl	None	Orange
Pearl	None	Yellow
Pearl	None	Plum
Pearl	None	Copper

Glitter	None	Purple
Glitter	None	Red
Glitter	None	Orange
Glitter	None	Yellow
Glitter	None	Plum
Glitter	None	Copper

Pearl	Silver	Purple
Pearl	Orange	Purple
Pearl	Purple	Red
Pearl	Yellow	Plum
Glitter	Blue	Red
Pearl	Pink	Purple
Pearl	Blue	Plum
Pearl	Silver, Holographic Glitter	Gold
Pearl	Silver, Holographic Glitter	Copper

Sensitivity

Photochromic lacquers are sensitive to adverse environmental conditions. These are listed below, along with a description of the nature of the sensitivity, and recommendations with regards to them.

MIXING:

Photochromic lacquers should be mixed prior to use as in some cases the contents may settle during transit. A drill and mixing blade is sufficient. No high shear mixing is necessary as the materials within the photochromic lacquers have already been adequately dissolved and dispersed.

LIGHT FASTNESS: Photochromic lacquers will degrade from UV exposure over time. Exact life expectancies depend on the intensity and duration of the UV exposure. Some colors will degrade faster than others. Do not use UV inhibitors over the photochromic lacquers as it will interfere with the color change properties.

HEAT: Some colors may degrade more quickly over time when held at elevated temperatures. Photochromic lacquers should be stored in a cool environment.

CHEMICALS:

Photochromic lacquers are ready to use right out of the container. The addition of thinners or any other type of modifiers is not recommended as this could shorten the life of the ink.

ALL APPLICATIONS USING COLOR-CHANGING PIGMENTS AND INK OF ANY KIND SHOULD BE THOROUGHLY TESTED PROIR TO APPROVAL FOR PRODUCTION

Information in this Product Data Sheet is compiled from our general experience and data obtained from various technical publications. While we believe that the information provided herein is accurate at the date hereof, no responsibility for its completeness or accuracy can be assumed. Tests are carried out under controlled laboratory conditions. Information is given in good faith, but without commitment as conditions vary in every case. The information is provided solely for consideration, investigation and verification by the user. We do not except any liability for any loss, damage or injury resulting from its use (except as required by law). Please refer to the Material Safety Data Sheet before using products to ensure safe handling.