

Solver Paints

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PRODUCT INFORMATION

SS-115

PREMATURE YELLOWING OF ALKYD BASED PAINTS.

The yellowing of white or light coloured solvent based alkyd enamels such as SOLVER Line 4171 Int/Ext High Gloss Enamel can be accelerated by two known factors:

1. Dark Chamber Yellowing.

Premature discolouring of the paint film is caused by the yellowing of the Oil present in the alkyd resin when the paint is **not** exposed to natural daylight, e.g. when white or light coloured surfaces are painted and then kept in a darkened environment such as inside cupboards or behind obstacles.

This effect is reversible by exposing the area to light rich in ultra violet, such as daylight.

2. Other Premature Yellowing.

The second instance where enamels yellow prematurely, up to 20 times the normal rate, is where enamels are applied, or allowed to dry, in close proximity to products containing ammonia. Ammonia can be found in many water based paints and household cleaning products.

Early instances were found in project home construction where the skirtings and architraves were painted the same day as the wall surfaces using oil modified alkyd and water based coatings respectively. After painting and securing the home overnight or longer, with little or no ventilation, allowed the ammonia to concentrate at higher than normal levels and react with the oil causing the discolouration.

As stated by the Australian Paint Manufacturers' Federation "Enamel paints are based on vegetable oils and provide a very tough, hard wearing coating for interior surfaces. This toughness is provided by the vegetable oil component reacting with oxygen in the air and 'drying' or hardening. As a result of this drying process, white or pale coloured enamel paints have always tended to yellow with aging, particularly in situations where there is high humidity, eg, sliding doors, or inside cupboards", ie, in dark environments.

As a result of these effects, it is recommended that when white or pale coloured enamels are used, that the following points be taken to minimise the yellowing effect:

1. Avoid the application of alkyd enamel to trim such as cupboards, skirtings and architraves until the water based paints used on the walls have had adequate time to allow the evaporation and removal of the ammonia incorporated as part of their manufacture.
2. Avoid the use of household cleaners that contain high levels of ammonia for a period of approximately two weeks after the application of the alkyd enamel.
3. Recognise that prolonged periods of darkness will allow the gradual onset of dark chamber yellowing of alkyd enamels. This is seldom a serious problem as such painted items are rarely highly visible. However, if it is perceived as a problem other coatings, e.g. Solver Acrylic Enamels, should be considered as alternatives.

The potential for yellowing has always existed with Alkyd enamels but in reality rarely creates a real problem. The above information is offered as an explanation of the phenomenon and sets out possible methods of minimising or avoiding it.

CHANGES SINCE LAST ISSUE:

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