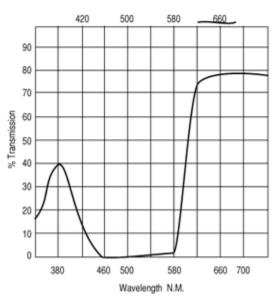
Documents

## #342 Rose Pink

TRANS. = 16%





Roscolux is comprised of two types of plastic. More than 65% of the line is made from co-extruded polycarbonate plastic. The remainder of the line is deep dyed polyester. Sheets:  $50 \times 61 \text{ cm}$  Rolls:  $1.2 \text{m} \times 7.62 \text{m}$ 

## **How Color Filters Work**

Filters create color by subtracting certain wavelengths of color. Thus, a red filter absorbs blue and green, allowing only the red wavelengths to pass. The process is subtractive, not additive, so the light source must emit a full spectrum.

The Rosco swatchbook provides detailed information on the spectral energy curve of each filter. The curve describes the wavelengths of color transmitted through each filter. For example, Supergel 342 transmits approximately 40% of the violet and blue energy of the spectrum and 75% of the orange and red energy. It absorbs all energy in the yellow and green range.

## **Durability**

The life of color filters depends on many variables: the color, the instrument and lamp used, the dimmer level a filter generally runs at, and the amount of time the light is running. For these reasons it is impossible to assign a "life" for each filter. However some basics knowledge and experience can help with estimates. Dark green and dark blue filters usually burn out the fastest because they absorb the most infrared energy. Absorbing the extra infrared energy causes the plastic to reach it's melting temperature faster. When darker filters are needed try choosing filters that transmit high amounts of

the 700 nm range. You can find this information by looking at the Spectral Energy Distribution (S.E.D.) curve located in the swatchbook for each Supergel color filter. Filters than transmit high levels at 700 nm may also transmit high levels in the infrared range above 700 nm.(See the Supergel swatchbook for information on how to read S.E.D. curves.)

To prolong the life of a color filter, align your ellipsoidal lamp to a flat field focus. (Get rid of the hot spot.) You can increase the distance between the lamp and the filter by using a top hat or barn door. In extreme cases, try Rosco Heat Shield or Thermashield to prolong the life of your filters.

Never use a plastic filter directly in front of an open faced lamp. This will nearly always cause premature failure because the heat is trapped and it has nowhere to go except to the plastic filter. Always allow a suitable air gap.

## How To Read An S.E.D. Curve

The spectral energy distribution curve of each Roscolux filter describes the wavelengths of color transmitted through the individual filters. For example, Roscolux #342 transmits approximately 40% of the violet and blue energy of the spectrum and 75% of the orange and red energy. It blocks all energy in the yellow and green range.

The "Trans." Percentage refers to overall light transmission that is allowed to pass through each individual filter.

Click on this icon shown next to each color filter to view its SED curve.

Available in sheets of 20in. x 24in. (50cm x 61cm) or rolls of 24in. x 25ft. (61cm x 7.62m).

Color Effects Filters Sort by: