

# User's Guide Vinyl Flex - Coated LC Sheeting

## GENERAL INFORMATION AND NOTES

1. Coated sheets are the most stable form in which LCs are readily available.
2. The sheets are constructed from a vinyl film with clear polyester (Mylar) or over laminate. The color change properties of the LC coating are viewed through the clear over laminate.
3. The sheets are supplied backed with pressure-sensitive adhesive and, on removal of the protective backing, can be adhered to a variety of flat surfaces.
4. As with all LC applications, the better the incident lighting, the brighter the colors reflected by the LC. However, the use of incandescent lamps too close to the Vinyl Flex should be avoided, as the materials are sensitive to UV light and the color play properties will change on prolonged exposure.
5. The colors observed depend not only on temperature, but also on the angle of observation (and illumination). In practice, LC sheets should be viewed from a direction normal to their surface.
6. Vinyl Flex should retain color play characteristics for 12 months under normal handling conditions. Continued submersion and temperature cycling in hot (40+°C (105+°F) water baths will accelerate degradation, as will continued temperature cycling at elevated temperatures in general.

## USAGE INSTRUCTIONS

Using the products as a freestanding film in air and fluid flows is straight forward; all that is necessary is adequate support. To fasten the sheets to flat surfaces, the following simple steps should be followed:

1. Clean surface thoroughly to remove all dirt, grease, etc. Chloroform, petroleum ether and similar organic solvents may be used. Ensure that the surface is completely dry before proceeding.
2. Remove protective backing from adhesive and place sheet lightly in position on surface. Press down firmly with fingers in center of sheet and smooth outward, in each direction in turn, to ensure that no air bubbles are trapped between the sheet and the surface.

## CLEANING UP

Sheets can be cleaned using a soft cloth and warm soapy water. Do not use abrasive material or aggressive solvents.

## STORAGE

Unused sheets should be stored out of direct sunlight at room temperature (20-25°C (68-77°F), and preferably in a solvent-free environment. Sheets in position on test surfaces should be protected from UV light and organic solvents wherever possible. The color play properties of the sheets should be checked out at regular intervals to ensure that they have not changed. Vinyl Flex has a 12-month shelf life if the sheets are stored correctly.

**Custom Applications Encouraged!**