

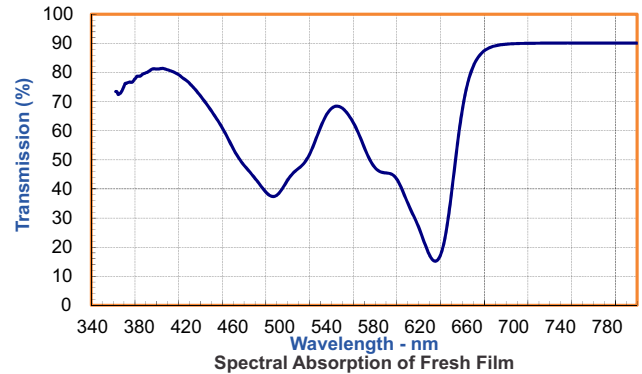
Light Logics

Holographic Photopolymer Film LLPF465



-a highly convenient and useful live holographic material.

- High Diffraction Efficiency
- High Refractive Index Modulation
- No wet processing
- Works under relatively bright safe light
- Freedom from dust and dirt
- Easy to cut and handle
- Cost effective and easy to store



The material is optimum for recording Denisyuk Display Holograms, Volume Holograms and HOEs in reflection mode. Works in transmission mode too. Photopolymer layer can be easily laminated to a glass substrate. Please see the pictures attached. A squeegee can be effectively used for this. After the light based bleaching process (given below) the film can be removed from glass. Emulsion Thickness – 15 microns.

Specifications (Reflection Holograms in Two Beam Configuration)

Wavelength	Dosage	Max DE	μ Modulation
633 nm:	~ 17mJ/cm ²	≥ 85-90%	≥ 0.029
532 nm:	~ 12mJ/cm ²	≥ 85-90%	≥ 0.029
473 nm:	~ 30mJ/cm ²	≥ 85-90%	≥ 0.029

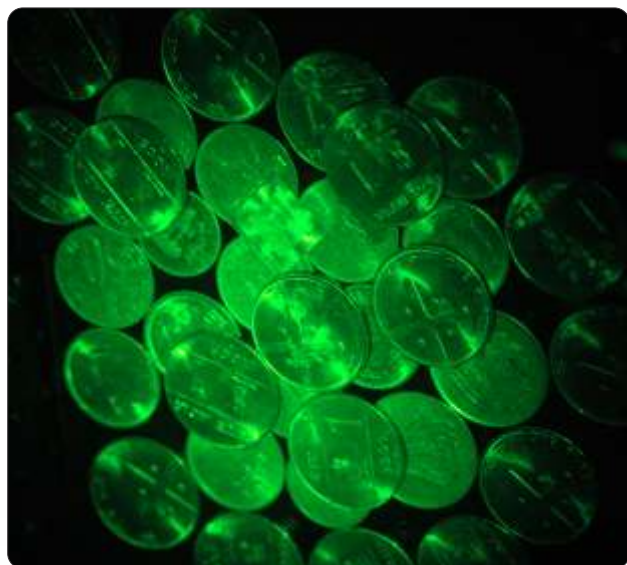
Film size: 5cm x 5cm or 12.5cm x 12.5cm (20 films per pack)

Suggested After Exposure Bleaching

After recording, the film, laminated on the glass substrate, is to be flooded with light from a mercury lamp, which is suggested as the bleaching process. Exposure to a halogen lamp, at a distance of 45 cm, for about 3 minutes can also be done. Alternatively the film can be exposed under direct sunshine for about 5 minutes. Heating of the emulsion above 60°C is to be avoided. Dosage for bleaching: 5000 - 10000 mJ/cm². Direct exposure under sunshine

Storage of the Film:

Storage temperature: between 15°C and 25 °C. Unexposed film is to be protected from light, heat and humidity.

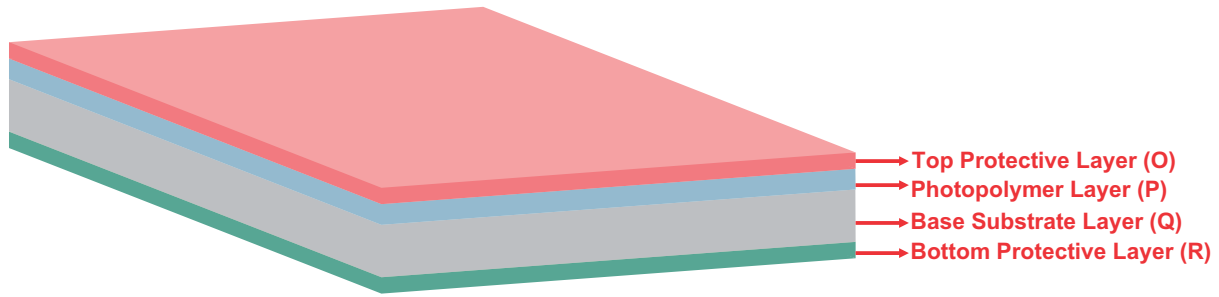


A bright Denisyuk Hologram recorded in the film

For more information and orders please contact: +91 9447383484

www.lightlogics.in

Hologram Recording by Using Photopolymer Film



Commercial Photopolymer Film: Structural Layers

Step - 1
Remove top protective layer (O). Photopolymer layer below this will be sticky and can be applied directly to a glass plate by using a Squeegee.

Photopolymer Film Application on Glass (Fig:1)

Photopolymer Film Applied on Glass (Fig:2)

Step - 2
Remove the layer (R) now at the top, so that the Photopolymer layer is ready for exposure.

Ready to Shoot Film on Glass (Fig:3)

Step - 3
Now expose the material as per the optical scheme based on the hologram to be recorded.

Recording (Fig:4)

Recorded Hologram (Fig:5)

Step - 4
Bleach the recorded hologram by flushing with strong white light from a halogen lamp (or even Sun shine).

Bleaching (Fig:6)

Final Hologram (Fig:7)

Now the hologram may be removed from the glass substrate. Squeegee can be purchased from suppliers of sun control film. Substrate glass can be a clear 2mm or 3mm glass used for photo framing.
For more information and Photopolymer material Please contact us: +91 471 2383484