



Holography Plates

PRODUCT FEATURES

- ▲ Transmission & reflection holograms
- ▲ High resolving power
- ▲ Different wavelengths
- ▲ CW or pulsed lasers

APPLICATIONS

- ▲ Educational experiments at schools and universities
- ▲ Holographic interferometry

PFG-01, RED SENSITIVE

The glass plates with standard thickness 2.1 mm are available in formats 63x63 mm up to 300x406 mm. Emulsions can be used with CW or pulsed lasers and are suitable for transmission as well as for reflection holograms.

PFG-03M, RED SENSITIVE, HIGH RESOLUTION

The material PFG-03M has smaller grain (8 – 12 nm) than PFG-01 material (40 nm) and high resolution >5000 lines/mm. Luminance is better due to small scattered light, but it requires high exposure power. The fine grain emulsion is suitable in particular for reflection holograms.

VRP-M, GREEN SENSITIVE

The glass plates with standard thickness 2.1 mm are available in formats from 63x63 mm up to 300x406 mm. Emulsions can be used CW or pulsed lasers and are suitable for transmission as well as for reflection holograms.

PFG-03C, PANCHROMATIC PLATES

The Material PFG-03C has smaller grain (8 – 12 nm) than PFG-01 material (40 nm), a high resolution of >5000 lines/mm and allows realization of full color holograms. Luminance is better due to small scattered light, but requires high exposure power. The fine grain emulsion is suitable in particular for reflection holograms.

PFG-04, DICHROMATIC PLATES

Dichromate gelatin holographic plates with emulsion thickness 16 - 17 μm are designed for phase reflection holograms with blue or green laser (457 nm, 488 nm and 514 nm). Sensitivity reaches 100 mJ/cm^2 in the blue and 250 mJ/cm^2 in the green spectrum range. Due to its homogeneous structure, this emulsion has high resolving power and a diffraction efficiency of >75%.

SPECIFICATIONS

Material	PFG-01	VRP-M	PFG-03M	PFG-03C	PFG-04
Sensitivity					
@ 457 nm CW, $\mu\text{J}/\text{cm}^2$	-	-	-	2000	80000
@ 488 nm CW, $\mu\text{J}/\text{cm}^2$	-	-	-	-	100000
@ 514.5 nm CW, $\mu\text{J}/\text{cm}^2$	-	75	-	3000	250000
@ 526.5 nm, $\mu\text{J}/\text{cm}^2$	-	75	-	-	-
@ 633 nm, $\mu\text{J}/\text{cm}^2$	80	-	1500 - 2000	3000	-
Maximum density on characteristic curve (D_{max})	<4.0	<4.0	<4.0	<4.0	X
Resolving power (R), mm^{-1}	3000	3000	5000	5000	homo- geneous
Maximum spectral sensitivity, nm	633	530	633	457/514/633	415
Swollen emulsion layer strength after chemical processing, H (gm force)	900	900	>50	>50	X
Deformation temperature of emulsion layer in water (T_{def})	>90°C	>90°C	>35°C	>35°C	X
Emulsion layer thickness, μm	7 - 8	6 - 7	6 - 7	9 - 10	16 - 17

STANDARD PLATE SIZES

Article No. *	Type	Size	Plates/Box
P-PFG01-6363-30 **	PFG-01	63 x 63 mm^2	30
P-PFG01-1012-25 **	PFG-01	102 x 127 mm^2	25
P-PFG03M-6363-30	PFG-03	63 x 63 mm^2	30
P-PFG03M-1012-25	PFG-03	102 x 127 mm^2	25
P-VRPM-6363-30 **	VRP-M	63 x 63 mm^2	30
P-VRPM-1012-25 **	VRP-M	102 x 127 mm^2	25
P-PFG03C-6363-30	PFG-03C	63 x 63 mm^2	30
P-PFG03C-1012-25	PFG-03C	102 x 127 mm^2	25
P-PFG04-6363-30	PFG-04	63 x 63 mm^2	30
P-PFG04-1012-25	PFG-04	102 x 127 mm^2	25

* Other sizes available on request. ** Short delivery time.