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Products

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  Slavich is now undergoing testing of holographic film using the same emulsions as used on its plates. We hope to have availability very soon. If you wish to be kept abreast of film availability please Register, and let us know your emulsion preference. 3Deep will not promise film unless there is film to be promised.

Summary of Emulsion Specifications

Emulsion Type	Color Sensitivity	Application	Sensitivity Range (nm)	Spectral Sensitivity (J/m2)	Diffr. Efficiency %	AGFA analogue	Res. lp/mm
PFG-01	Red	Transmission with pulse laser	633 nm 694 nm	1	45	8E75	3,000
PFG-01M	Red	Transmission and reflection with pulse laser	633 nm 694 nm	1	45	8E75HD	5,000
PFG-03M	Red	Reflection holograms	633 nm	20	45	n/a	10,000
FPR	Green	Transmission with pulse laser	532 nm	1	45	8E56	3,000
FPR - M	Green	Transmission and reflection with pulse laser	532 nm	1	45	8E56HD	5,000
PFG-03C	Blue Green Red	Color reflection	457 nm 514 nm 633 nm	20 30 30	25 40 40	n/a	12,000
PFG-04	Blue Green	Phase reflection on Dichromated Gelatin	488 nm 514 nm	250	70	n/a	5,000

Plate Packaging Information

Photos of the packaging (123K bytes)

Size Nominal (inch)	Size Actual (cm)	Plates /Box	Kg /Box	Lbs. /Box	PFG-01	PFG-01M	PFG-03M	FPR	FPR-M	PFG-03C	PFG-04
2.5" x 2.5"	6.3cm x 6.3cm	6	0.3	0.7	Not Stocked	Not Stocked	**Stocked**	**Stocked**	Not Stocked	**Stocked**	Not Stocked
4" x 5"	10.2cm x 12.7cm	4	0.5	1.1	**Stocked**	**Stocked**	**Stocked**	**Stocked**	Not Stocked	Not Stocked	Not Stocked
8" x 10"	20.0cm x 25.0cm	6	3.0	6.5	Not Stocked	Not Stocked	Not Stocked	Not Stocked	Not Stocked	Not Stocked	Not Available
12" x 16"	30.0cm x 40.6 cm	6	7.5	16.5	Not Stocked	Not Stocked	Not Stocked	Not Stocked	Not Stocked	Not Stocked	Not Available

Notes:
Plate pairs are wrapped in light-safe paper in cardboard box.
Other sizes are available.

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8"X10" FPR-M 6/box

1. Holographic Sensitivity For exposure by helium-neon laser (633 nm) For exposure by argon laser (514 nm) For exposure by argon laser (457 nm)	< 3.0 mJ/cm^2 < 3.0 mJ/cm^2 < 2.0 mJ/cm^2
2. Diffraction Efficiency For exposure by helium-neon laser (633 nm) For exposure by argon laser (514 nm) For exposure by argon laser (457 nm)	> 40 % > 40 % > 25 %
3. Resolving Power	> 5000 mm^{-1}
4. Emulsion Layer Thickness	10 mkm
5. Grain Size	8 nm

II. PFG-03C: Manufacturer's Recommended Processing Procedure

Name and Sequence of Operations	Time (Min.)	Chemicals	
1. Hardening	6	Formalin 37%	10 ml
		Potassium Bromide	2 g
		Sodium Carbonate	5 g
		Water	to 1 Liter
2. Washing in filtered running water	1-2		
3. Developing in VRP	4-5	**CONCENTRATED VRP**	
		Sodium Sulphite anhydrous	194 g
		Hydroquinone	25 g
		Potassium Hydroxide	22 g
		Methylophenydone	1.5 g
		Potassium Bromide	20 g
		Potassium Metaborate	140 g
		1,2,3-Benzotriazole	0.1 g
		Distilled Water	to 1 Liter
		WORKING SOLUTION 1 part of VRP Developer + 6 parts of water	
4. Washing in filtered running water	1-2		
5. Bleaching in PBU-Amidol Bleacher	5-8	Copper Bromide	1 g
		Potassium Persulphate	10 g
		Citric Acid	50 g
		Potassium Bromide	20 g
		Distilled Water	to 1 Liter

		Distilled Water	to 1 Liter
		Amidol	1 g
6. Washing	2		
7. Stop-bath	2	Acetic Acid	20 g
		Water	to 1 Liter
8. Washing	2		
9. Bathing	2	Distilled water with added wetting agent	
10. Drying in normal conditions			

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PFG-04

PFG-04 plates are designed to record holograms in contrary beams by Denisiuk method using continuous laser emission in blue and green spectrum (for instance, helium-cadmium, argon or neodymum laser). PFG-04 plates are used to manufacture holographic optical elements. High quality of the registering layer provides highest diffraction efficiency and minimum noise level.

I. PFG-04 Holographic Properties

1. Holographic Sensitivity For exposure by 514 nm For exposure by 488 nm	 < 250 mJ/cm^2 < 100 mJ/cm^2
2. Diffraction Efficiency For exposure by 514 nm For exposure by 488 nm	 > 75 % > 75 %

II. PFG-04 Manufacturer's Recommended Processing Procedure

1. Thermal hardening after exposure (70 degree C) - up to 30 min depending on layer freshness.
2. Cooling to room temperature.
3. Bathing in running filtered water - 3 min.
4. Bathing in 50% Isopropyl Alcohol solution - 2-3 min.
5. Bathing in 75% Isopropyl Alcohol solution - 2-3 min.
6. Bathing in 100% Isopropyl Alcohol solution - 2-3 min.
7. Drying in desiccator (100 degree C) - 60 min.
8. Emulsion layer preserving using optical anhydrous adhesive and protective glass.

Notes:
1. Processing solution temperatures must not exceed 20 degree C for fresh layers. If "milk" color holograms appear, processing solution temperature should be decreased or thermal hardening period should be prolonged.
2. This material life is 12 months.

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