



## TECHNICAL PHOTOGRAPHIC PLATES

### Fields of Application

**PFN-01T Technical negative photoplates** are designed for portrait, landscape, architectural, subject and other technical surveys black-and-white photography.

**PFP-01T Positive photoplates** are designed for manufacturing of thermometrical scales, stained-glass windows and making of black-and-white images, which are examined in passing light or projected on the screen. There are three grades according to contrast: contrast, special contrast, and supercontrast.

**PFRP-01T Reproductive semi-tone technical photoplates** are designed for reproduction semi-tone black-and-white and color originals, which are notable for smooth (gradual) transition from shadow to light. There are two grades: normal and contrast.

**PFRSh-01T Reproductive line technical photoplates** are designed for reproduction of highcontrast text originals and illustration materials in the form of strokes, specks and dots.

### Characteristics

Name of Indices	PFN-01T	PFRSh-01T	PFRP-01T		PFP-01T		
			normal contrast	contrasting	contrasting	very contrasting	over contrasting
General Light Sensitivity (S 0,9) unites GOST (S 0,1) unites GOST S unites ISO/Din	32-200 160/23	6-20 13/12	10-20	13/12	1-5 7/9	2-6 7/9	2-6 7/9
Effective Sensitivity with ZhS-18 light-filter (Seff), not less than	10-40	1,6		1,2	-	-	-
Maximum Density on the characteristic curve, Dmax, B, not less than	3,0	3,0	2,5	2,8	1,5	2,0	2,0
Gamma, ( $\gamma$ ), not less than	1,7-2,1	3,0	1,6	2,0	1,5	2,5	3,0
Fog Density, ( $D_0$ ), B, not more than	0,12	0,08	0,09		0,06		
Exposure Latitude, (L), not less than	0,9-1,2	-	-		-		
Boundary zone of spectral sensitization, nm, not more than	580	580	580		400-520		
Maximum of spectral sensitization, nm	560±10	560±10	560±10		-		
Resolving Power (R), mm <sup>-1</sup> , not less than	70-100	125	85		100	85	85



Developing time, min in UP-2M developer in developer № 1	4-8	3-6	4-8	3-6
Strength of swollen emulsion layer after chemical photographic processing, H (gram-force), not less than	2 (200)	2 (200)	1,5 (150)	2 (200)
Adhesion between emulsion layer and base after chemical photographic processing, conventional classes A-F	A-D	A-C	A-C	A-C
Temperature of emulsion layer Deformation, Tdef, °C, not less than	45	45	40	45
Metallic silver content, g/m <sup>2</sup>	6,5±0,2	4,5±0,2	4,5 ± 0,2	4,2 ± 0,2
Antihalation protection	Yes	Yes	Yes	No

**Main sizes of the photographic plates (in mm) as follows:**

90x120, 90x240, 130x180, 180x240 per 6 plates (on glass base of 1,7-1,9mm thickness) in a cardboard box. According to an agreement between a customer and a manufacturer the photographic plates can be manufactured of other sizes.

Open and process the photographic plates under indirect safe light conditions with using a dark-red light-filter № 107.

Climate conditions for photographic plates usage: temperature of environment is  $(20 \pm 5) ^\circ\text{C}$ , relative humidity of air  $(65 \pm 15) ^\circ\text{C}$ .

**Chemical-Photographic processing conditions of the photographic plates:**

Name of operation	Time of processing, min	Temperature, °C
Development	3 – 6 4 - 8	20,0 ± 0,5
Intermediate washing	0,1 – 0,2	18 ± 2
Fixing	10 - 15	20,0 ± 0,5
Washing	5 -10	18 ± 2
Drying in the open air	To be dried out completely.	20 ± 5

For photo-chemical processing of the Photographic plates Micron production plant manufactures sets of chemical agents for ST-1, UP-2M developers and BKF fixer for 1 liter; liquid concentrated solution of KF-PHOTO fixer.

**Guaranteed shelf life of photographic plates is:**

PFN-01T, PFRP-01T - 12 months  
PFRSh-01T - 18 months  
PFP-01T - 24 months