ARGENTONE Photo Papers Black & White
POLYBROM FB

ARGENTONE POLYBROM FB papers are fibre base, variable contrast high speed, neutral-to-medium warm tone black and white enlarging papers. These papers are favoured by sophisticated photographers and photo artists due to the beautiful black tone and extra whiteness. The fact that the contrast can be changed and controlled from extra-soft to extra-hard only increases the value of the paper, in addition:

- The tone can be changed by using different types and brands of developers
- Incomparably special images can be obtained by using lith developer
- High D_{max} value
- Polybrom FB papers with matt surface are suitable for colouring

Choice of Polybrom FB papers:

Polybrom FB papers are available on a double weight (235 g/m^2) base in glossy, and matt surfaces.

Sizes and packing units

Sheet sizes

cm	Inch	Sheets/unit	
8,9 x 14	3 1/2 x 5 1/2		100
10,5 x 14,8	-		100
12,7 x 17,8	5 x 7		100
17,8x 24	-	25	100
20,3 x 25,4	8 x 10	25	100
24 x 30,5	10 x 12	10	50
30,5 x 40,6	-	10	50
40,6 x 50,8	-		10
50,8 x 61			10

Roll sizes

Width		Length
cm	Inch	m
8,9	3 1/2	84, 175, 236, 550
10,2	4	84, 175, 236
12,7	5	75, 84, 100, 130, 150, 175, 236
20,3	8	84, 152, 305
25,4	10	152
108	-	10

Supply of any other size or packing is subject to prior special agreement!

Photographic parameters:
ARGENTONE Polybrom FB papers are sensitive to the blue and green portions of the spectrum of the light source used. Since the contrast of the blue and green part of the emulsion is different, the contrast of the print can be controlled by using magenta or yellow filters in the print making process. The increase in contrast is achieved by using magenta filter, whereas yellow filtration will shift the contrast to the softer range. Printing can be accomplished by means of an enlarger equipped with colour head but is also possible to use Ilford or other types of filter sets.

Filtration with colour printing filters or colour mixing head:

Contrast Grade	0	1	2	3	4	5
KODAK*	80 Y	30 Y	10 M	60 M	120 M	200 M
AGFA*	120 Y	30 Y	20 M	130 M	300 M	400 M
DURST**	60 Y	30 Y	10 M	40 M	90 M	130 M
MEOPTA**	60 Y	30 Y	10 M	30 M	100 M	180 M

* colour printing filters
** colour mixing head

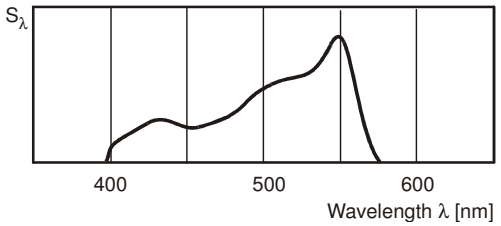
The exposures range (R) and speed (P) values of the papers according to the standard ISO 6846 are given in the chart below.

Technical data (Ilford Multigrade filters for contrast control)

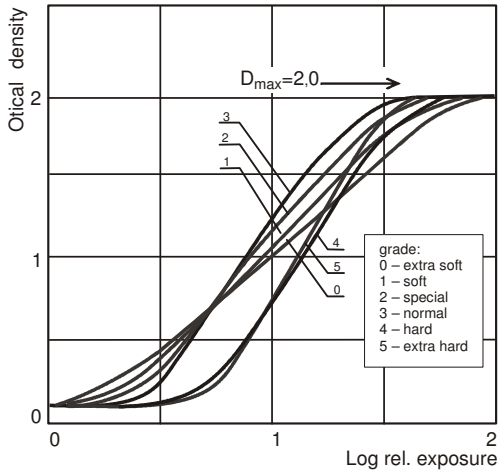
Filter	*Contrast grade*	*ISO P speed*	*ISO R range*	*Lengthening factor ($t_{rel.}$)*
00	special soft	200	160	2,4
0	extra soft	200	130	2,4
1	soft	200	110	2,4
–	special	500	100	–
2	special	200	90	2,4
3	normal	200	70	2,4
4	hard	100	60	2,4
5	ultra hard	100	50	2,4
Exposure for filters 0 – 3 the same; for filters 4 – 5 to be doubled				

Image tone: from neutral to medium warm tone

Relative Spectral Sensitivity of Polybrom FB



Characteristic curves of Polybrom FB Glossy with different filters:



P R O C E S S I N G

Darkroom safelight

Dark-red safelight is recommended like Ilford 906, Kodak GBX-2, Agfa R1 etc. The paper should be exposed to the darkroom safelight for as short time as possible.

Development:

The papers can be developed with good result in standard developers containing either methol-hydroquinone or phenidone-hydroquinone agents.
Developers with methol will shift the tone to the cold whereas phenidone to the neutral tone.
Developers containing stabiliser (e.g. benzotriazol) are recommended for those who prefer bluish black tone.

Argentone Polybrom FB papers can be processed either in trays, or in developing machines. Any of the usual known developers can be used, the final image may vary according to the developer's type actually used. The following developers of the most common types are specially recommended: Ilford Multigrade, Kodak Dektol or Polymax, Fomatol LQN or Fomatol P, or Tetenal Variospeed.

For fixing the usually available fixers can be used.

Processing in tray

Processing step	Processing bath	Time	Temperature (^oC)
Development	Developer	90–120 sec.	20
Stopping	Stop Bath, or 2% Acetic Acid	20-30 sec.	20
Fixing	Rapid Fixer	3 min.	20
	Fixer	5 min.	20
Washing	Running Water	30-45 min.	

Development time according to different tempreatures

Developing temperature ^oC	Development time sec
20	90-120
25	60-90
30	45-60

1-1,5 m^2 of photo paper can be processed in working solution of 1 litre.

Stop bath:

The use of a stop bath (acetic acid solution of 2 %) for about 10-20 sec. is recommended.
By using the stop bath further development is eliminated and the efficiency and life of the fixer is extended.

Fixing:

Argentone papers can be fixed in either the conventional or rapid fixers with good result.
The conventional fixing solutions are recommended in the first place for tray, while universal rapid fixers are better for machine processing.

Fixing times at different temperatures are given in the chart below:

Temperature of fixer ^oC	Time (min.) in conventional fixer	in rapid fixer
20	3-4	1,5-2,0
25	2-3	1,0-1,5
30	1-2	0,5-1,0

Washing:

To ensure good archival performance, thorough wash is a necessity.
Wash prints in running water minimally for 45 minutes, while in tank for 60 minutes.
Change the washing water several times.

Drying:

Argentone Polybrom FB with glossy surface can be glazed in glazing machines, dried naturally at room temperature, or dried by hot air up to 85 ^oC. Matt surface is not suitable for glazing!

Toning:

The papers allow for an excellent response to all toners and toning processes.
Chemical toners such as Kodak, Pebeo, Tetenal as well as complete kits such as Colorvir (containing dyes to colour the gelatine) give outstanding results.
Argentone Polybrom FB papers can be toned by using both direct and indirect toning method.

The changing of the temperature of the toning agent results in different colours of image tones.

Storage:

Polybrom FB papers should be stored at a dry and cool place.
Stored in the original packaging, below 20 ^oC at relative humidity of 40-60 % the papers remain free of adverse effects.