Title: Polarisers
Material / Specification: HN 38 visible grade / 38%
Range / Description: POL-HN 38

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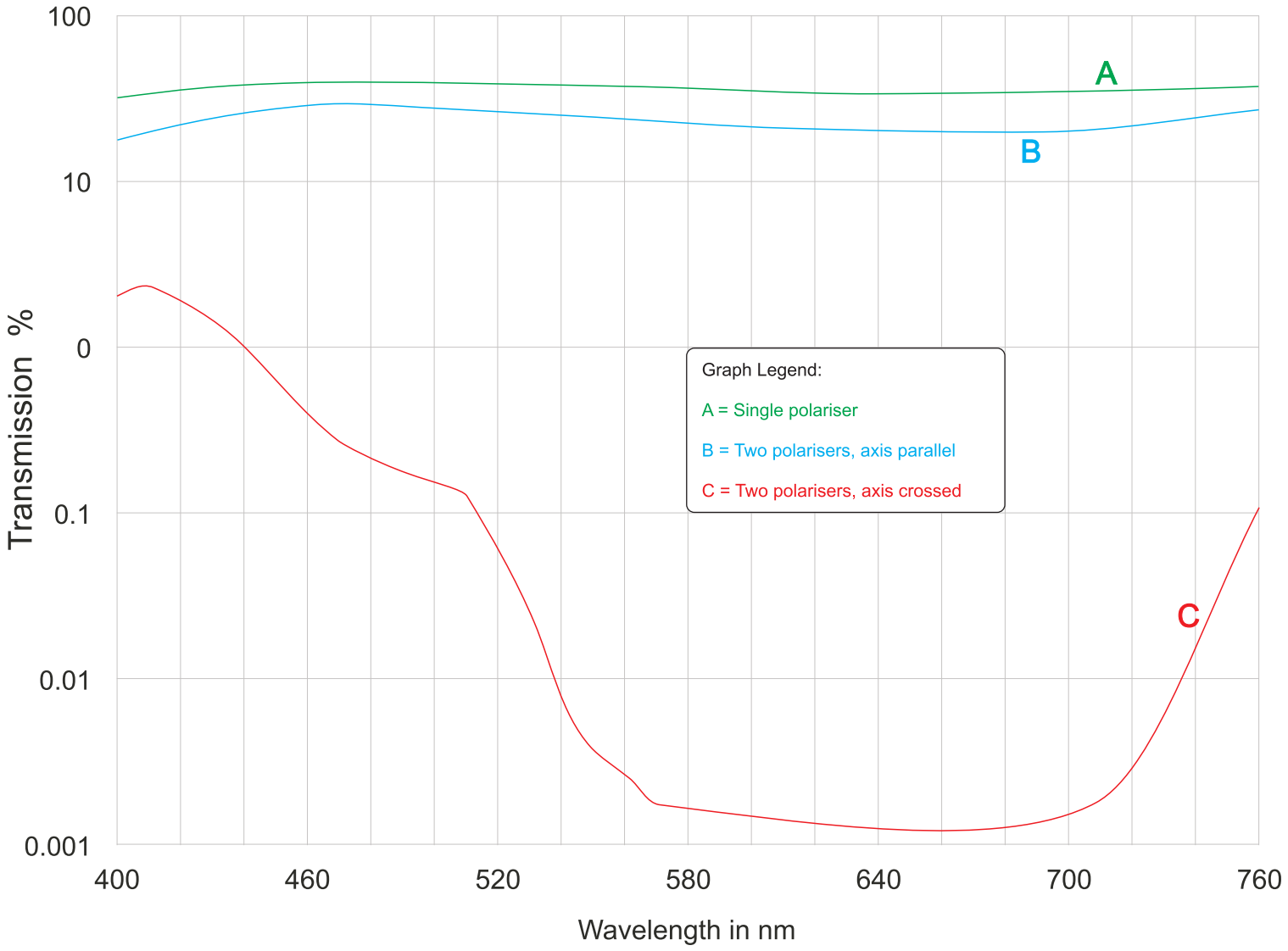


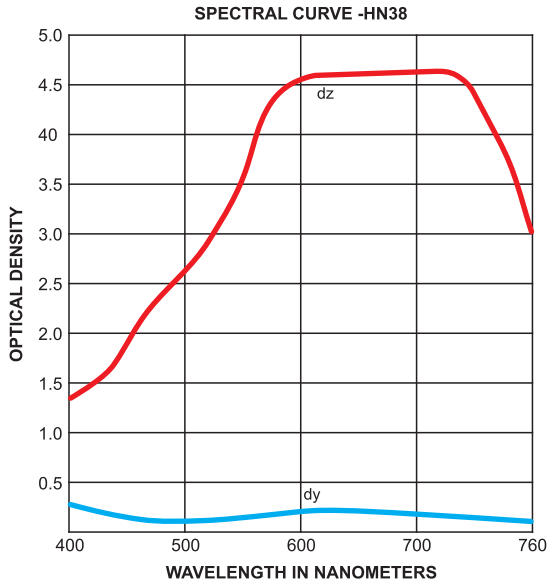
Singe: Transmittance for a single film.
Parallel: Transmittance for a double film, axis parallel
Crossed: Transmittance for a double film, axis crossed

Polariser: HN38
Type: Neutral linear polariser.
Features: Exceptionally free from colour distortion.
Typical Applications: Camera filters, studio light filters, variable colour filter systems other applications where high transmission is required along with a medium extinction density.

Polaroid Type HN38 Linear Polariser for Visible Radiation

The HN38 polariser is a linear polariser of the polyvinyl alcohol-iodine type for the visible region of the electromagnetic spectrum. It has a total luminous transmittance of approximately 88% and is noted for it's freedom fom colour distortion. Its recommended for camera filters, studio light filters, variable colour filter systems and other applications where high transmittance is of prime importance.

Spectral Properties: The principal optical density comonents of HN38 are shown in the figure below together with a list of spectral qualities. Its main absorbtion band is peaked in the 580-620 nanometers region. The Spectral properties are given in terms of the principal spectral density components. These components, labeled dz and dy, represent the maximum and minimum optical densities which can be obtained when the filter is measured against an incident beam of 100% linerly polarised radiation.
KV is the luminous transmittance of a single filter for unpolarised white light. H0 and H90 are the luminous transmittance for the unpolarised white light of two single filters in the parallel and crossed positions respectively. the spectral values given are considered typical. Actual valves will depend on the actual luminous transmittance of the sample. Transmittance tolerances are as follows: KV = 38% ± 3%. H90 = 0.075% ± 0.025%



Spectral Values - HN38

Wavelength, nm	DY	DZ	% Transmittance	Parallel	Crossed
400	19	1.39	34.68	21.41	2.64
410	16	1.41	36.80	24.34	2.74
420	14	1.48	37.80	26.18	2.40
430	13	1.59	38.52	27.76	1.91
440	12	1.73	39.03	29.06	1.41
450	11	1.88	39.48	30.14	1.03
460	11	2.12	39.55	30.69	0.60
470	10	2.27	39.89	31.40	0.42
480	10	2.41	40.37	32.28	0.31
490	09	2.57	40.68	32.88	0.22
500	09	2.75	40.73	33.03	0.15
510	09	2.98	40.32	32.43	0.08
520	09	3.27	40.30	32.43	0.04
530	10	3.61	40.19	32.28	0.02
540	10	3.96	39.91	31.84	0.009
550	10	4.26	39.63	31.40	0.004
560	10	4.47	39.35	30.97	0.003
570	11	4.56	39.26	30.83	0.002
580	11	4.59	38.64	29.85	0.00198
590	12	4.62	38.28	29.31	0.00183
600	12	4.65	37.84	28.64	0.00170
610	12	4.66	37.93	28.77	0.00166
620	12	4.66	37.93	28.77	0.00164
630	12	4.68	37.67	28.38	0.00156
640	12	4.69	37.93	28.77	0.00155
650	12	4.70	38.19	29.17	0.00153
660	12	4.71	38.28	29.31	0.00151
670	11	4.71	38.90	30.27	0.00152
680	11	4.72	38.99	30.41	0.00148
690	10	4.74	39.63	31.40	0.00146
700	10	4.72	39.99	31.99	0.00153
710	09	4.68	40.55	32.88	0.00170
720	09	4.56	41.11	33.80	0.00227
730	08	4.30	41.78	34.91	0.00419
740	07	3.89	42.37	35.89	0.011
750	07	3.45	42.48	36.06	0.030
760	06	3.02	43.20	37.24	0.083

KV = 39.31% **H0 = 30.87%** **H90 = .046%**