

ND Filter and f-stop Wallet/Backpack Cards

1. Cut out the 3 wallet/backpack cards along the larger rectangle for the two pages of each card.
2. Fold the card in half along the center line
3. You can laminate the cards at FedEx Office or similar places for about other \$1.25 each.

Optical Density	No of ND Stops	Exposure Multiplier	Optical Density	No of ND Stops	Exposure Multiplier
0.3	1	2	3.3	11	2,048
0.6	2	4	3.6	12	4,096
0.9	3	8	3.9	13	8,192
1.2	4	16	4.2	14	16,384
1.5	5	32	4.5	15	32,768
1.8	6	64	4.8	16	65,536
2.1	7	128	5.1	17	131,072
2.4	8	256	5.4	18	262,144
2.7	9	512	5.7	19	524,288
3.0	10	1,024	6.0	20	1,048,576

When stacking filters add the no. of stops and use the expos. multi. for the total no. of stops

Expos. Mult. = 2** (no. of stops)
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f-stop Change	Opening Aperture	Closing Aperture	f-stop Change	Opening Aperture	Closing Aperture
1/3	0.80	1.26	3 1/3	0.10	10.06
1/2	0.71	1.41	3 1/2	0.09	11.31
2/3	0.63	1.59	3 2/3	0.08	12.73
1	0.50	2.00	4	0.06	16.00
1 1/3	0.40	2.51	4 1/3	0.05	20.11
1 1/2	0.35	2.83	4 1/2	0.04	22.63
1 2/3	0.31	3.18	4 2/3	0.04	25.46
2	0.25	4.00	5	0.03	32.00
2 1/3	0.20	5.03	5 1/3	0.02	40.22
2 1/2	0.18	5.66	5 1/2	0.02	45.25
2 2/3	0.16	6.36	5 2/3	0.02	50.91
3	0.13	8.00	6	0.02	64.00

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