

# DATA SHEET

**HOYA® HY1**

**HOYA**

HOYA CANDEO OPTONICS CORPORATION

Thickness 2.50 mm

HY-1

Transmittance (T) units: %

λnm	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390
T	0.0	0.0	0.0	0.0	0.0	0.0	1.7	11.5	23.9	44.8	71.2	81.0	85.5	86.1	84.7	84.6	36.3	83.2	87.6	87.6
λnm	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590
T	89.2	88.0	71.4	87.5	78.2	38.1	17.1	81.7	85.8	81.8	89.4	89.2	89.2	85.0	68.9	83.6	89.5	89.7	89.7	89.5
λnm	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760	770	780	790
T	89.5	89.5	89.0	85.5	75.1	78.4	83.8	88.7	89.5	89.8	89.8	89.8	89.7	89.7	89.6	89.7	89.6	89.5	89.5	89.6
λnm	800	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950	960	970	980	990
T	89.7	89.7	89.8	90.0	89.8	89.9	89.7	89.7	89.0	89.3	89.7	89.5	89.6	90.2	90.2	90.3	90.4	90.4	90.4	90.5
λnm	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1120	1140	1160	1180	1200				
T	90.5	90.5	90.5	90.6	90.6	90.5	90.6	90.6	90.6	90.5	90.4	88.9	86.2	88.1	87.8	87.5				

Refractive Index/Absorption coefficient/Reflection coefficient

λnm	400	500	600	700	800	900	1000
n	1.517	1.511	1.509	1.508	1.508	1.507	1.507
K	3.2E-06	3.5E-06	3.5E-06	3.7E-06	3.8E-06	4.0E-06	4.1E-06
P	0.919	0.920	0.921	0.921	0.921	0.921	0.921

Classes of Bubbles and Inclusions

Bubble Class
3

Color Specification

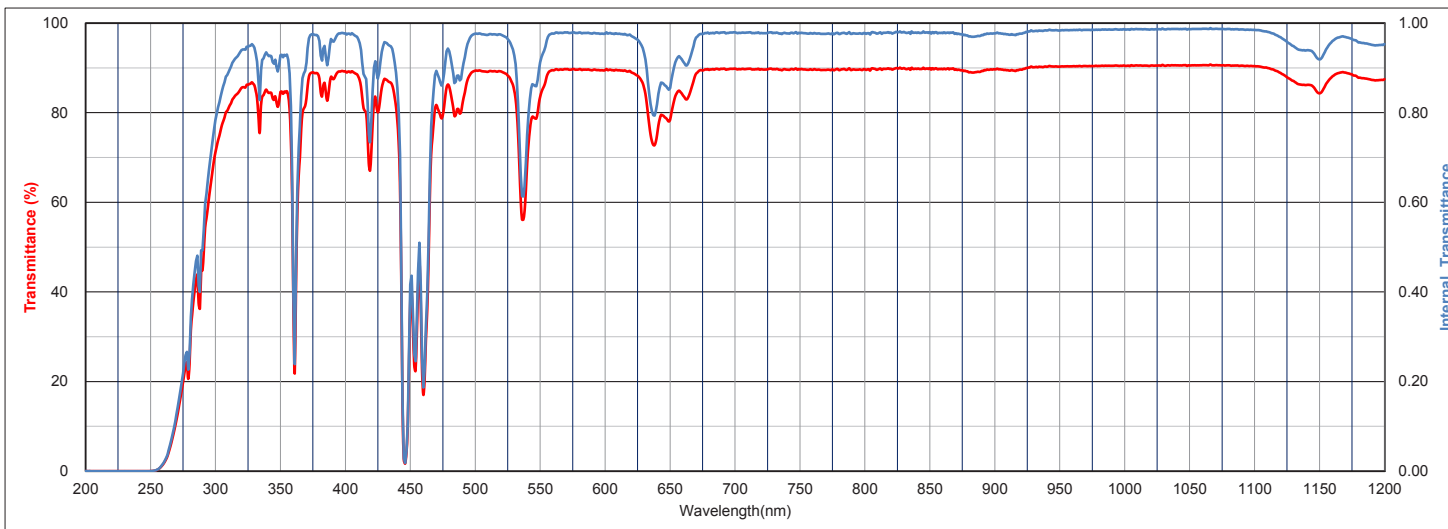
	x	y	Y	λ <sub>s</sub>	P <sub>e</sub>
A	0.465	0.425	86	581	24
C	0.337	0.360	85	571	19
D65	0.340	0.373	85	571	20

Properties

Chemical		Thermal				Mechanical		Others
D <sub>w</sub>	D <sub>k</sub>	T <sub>g</sub>	T <sub>s</sub>	α <sub>-30/70</sub>	α <sub>100/300</sub>	H <sub>k</sub>	F <sub>k</sub>	d
4	1	590	640	102	116	520	130	3.19

Tolerance of Transmittance (T)

Transmittance at 435nm	Transmittance at 445nm
T435(%)	T445(%)
>80	<5



All data is mean values of various melts.

The content of this catalog is accurate as of April ,2014

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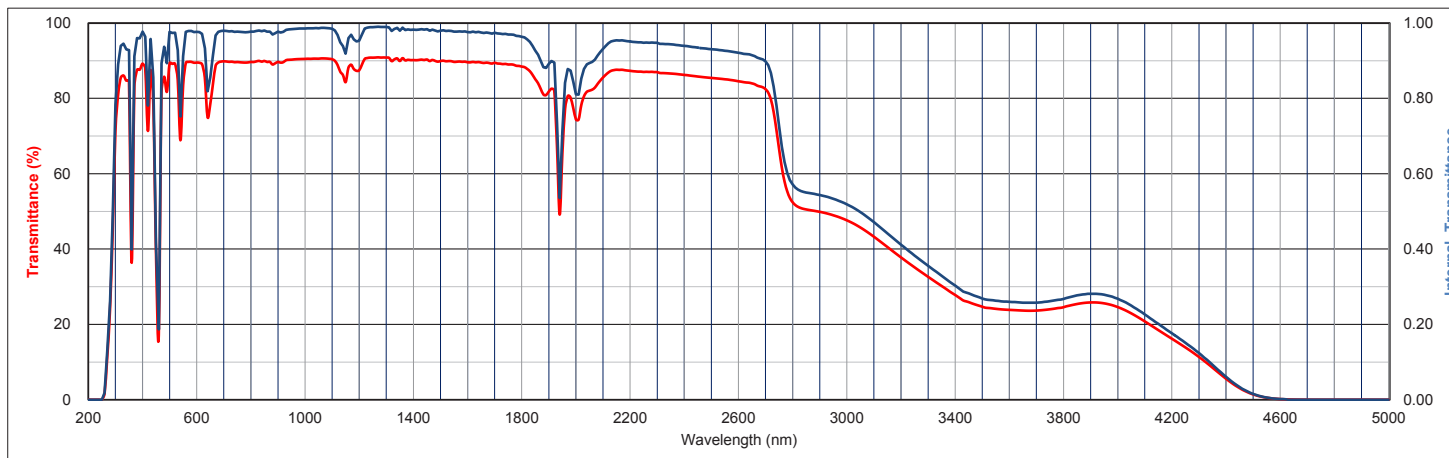
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λnm	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390
T	0.0	0.0	0.0	0.0	0.0	0.0	1.7	11.5	23.9	44.8	71.2	81.0	85.5	86.1	84.7	84.6	36.3	83.2	87.6	87.6
λnm	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590
T	89.2	88.0	71.4	87.5	78.2	38.1	17.1	81.7	85.8	81.8	89.4	89.2	89.2	85.0	68.9	83.6	89.5	89.7	89.7	89.5
λnm	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760	770	780	790
T	89.5	89.5	89.0	85.5	75.1	78.4	83.8	88.7	89.5	89.8	89.8	89.8	89.7	89.7	89.6	89.7	89.6	89.5	89.5	89.6
λnm	800	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950	960	970	980	990
T	89.7	89.7	89.8	90.0	89.8	89.9	89.7	89.7	89.0	89.3	89.7	89.5	89.6	90.2	90.2	90.3	90.4	90.4	90.4	90.5
λnm	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190
T	90.5	90.5	90.5	90.6	90.6	90.5	90.6	90.6	90.6	90.5	90.4	90.0	88.9	87.1	86.2	84.3	88.1	89.0	87.8	87.3
λnm	1200	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370	1380	1390
T	87.5	89.0	90.5	90.7	90.8	90.8	90.8	90.9	90.8	90.9	90.8	90.8	89.9	90.4	90.6	89.9	90.7	90.1	90.3	90.2
λnm	1400	1410	1420	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590
T	90.2	90.1	90.2	90.3	90.2	90.3	89.9	90.2	90.0	89.8	89.9	90.0	89.9	89.9	89.9	89.7	89.7	89.8	89.7	89.8
λnm	1600	1610	1620	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750	1760	1770	1780	1790
T	89.6	89.6	89.7	89.6	89.7	89.5	89.4	89.5	89.4	89.5	89.5	89.3	89.2	89.1	89.2	89.0	89.0	88.9	88.7	88.6
λnm	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
T	88.4	88.3	87.8	87.2	86.2	85.1	84.1	82.5	81.0	80.9	81.8	82.6	82.2	67.4	49.1	65.4	77.3	80.6	80.2	77.5
λnm	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950
T	74.4	82.1	85.6	87.6	87.3	87.0	87.0	86.6	86.2	85.8	85.4	85.1	84.5	84.0	82.4	66.6	52.4	50.5	49.9	49.0
λnm	3000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650	3700	3750	3800	3850	3900	3950
T	47.6	45.7	43.3	40.5	37.8	35.2	32.6	30.2	27.8	25.9	24.7	24.1	23.9	23.7	23.7	24.0	24.6	25.4	25.8	25.6
λnm	4000	4050	4100	4150	4200	4250	4300	4350	4400	4450	4500	4550	4600	4650	4700	4750	4800	4850	4900	4950
T	24.6	22.9	20.8	18.5	16.2	13.9	11.4	8.5	5.6	3.1	1.4	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
λnm	5000																			
T	0.0																			



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