

DATA SHEET

HOYA® W-IR800

HOYA

HOYA CANDEO OPTRONICS CORPORATION

Thickness 3.00 mm

W-IR800

Internal Transmittance (τ)

λnm	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390
τ	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05
λnm	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590
τ	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05
λnm	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760	770	780	790
τ	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	0.001	0.007	0.047	0.193
λnm	800	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950	960	970	980	990
τ	0.460	0.702	0.842	0.911	0.942	0.956	0.962	0.967	0.968	0.970	0.972	0.973	0.975	0.975	0.977	0.978	0.979	0.980	0.981	0.981
λnm	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1120	1140	1160	1180	1200				
τ	0.982	0.983	0.981	0.983	0.983	0.984	0.984	0.985	0.985	0.985	0.986	0.987	0.987	0.988	0.988	0.988				

Refractive Index/Absorption coefficient/Reflection coefficient

λnm	400	500	600	700	800	900	1000
n	1.590	1.576	1.570	1.565	1.562	1.560	1.559
K	2.3E-03	1.7E-03	1.1E-03	4.1E-04	1.8E-05	6.0E-07	3.0E-07
P	0.901	0.905	0.906	0.907	0.908	0.909	0.909

Classes of Bubbles and Inclusions

Bubble Class	3
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Color Specification

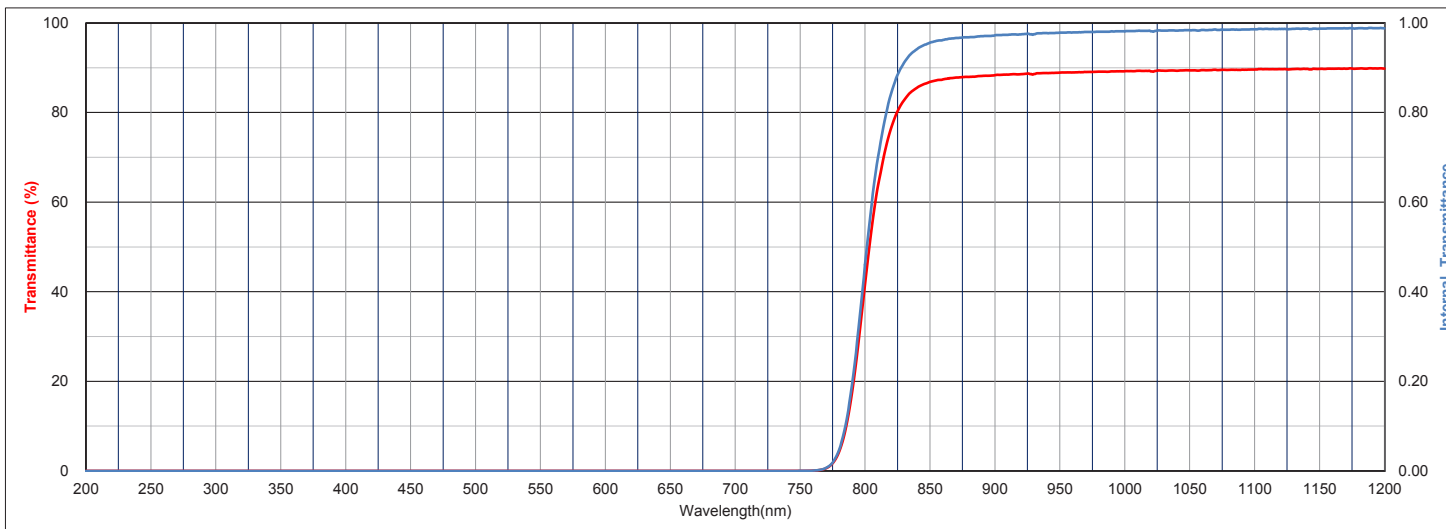
	x	y	Y	λ _d	P _e
A	-	-	-	-	-
C	-	-	-	-	-
D65	-	-	-	-	-

Properties

Chemical		Thermal				Mechanical		Others
D _w	D _k	T _g	T _s	α -30/70	α 100/300	H _k	F _k	d
4	5	555	610	0	102	425	190	3.01

Tolerance of Transmittance (σ)

λτ (nm)	ΔL (nm)	ΔH (nm)
800±8	<710	>920



All data is mean values of various melts.

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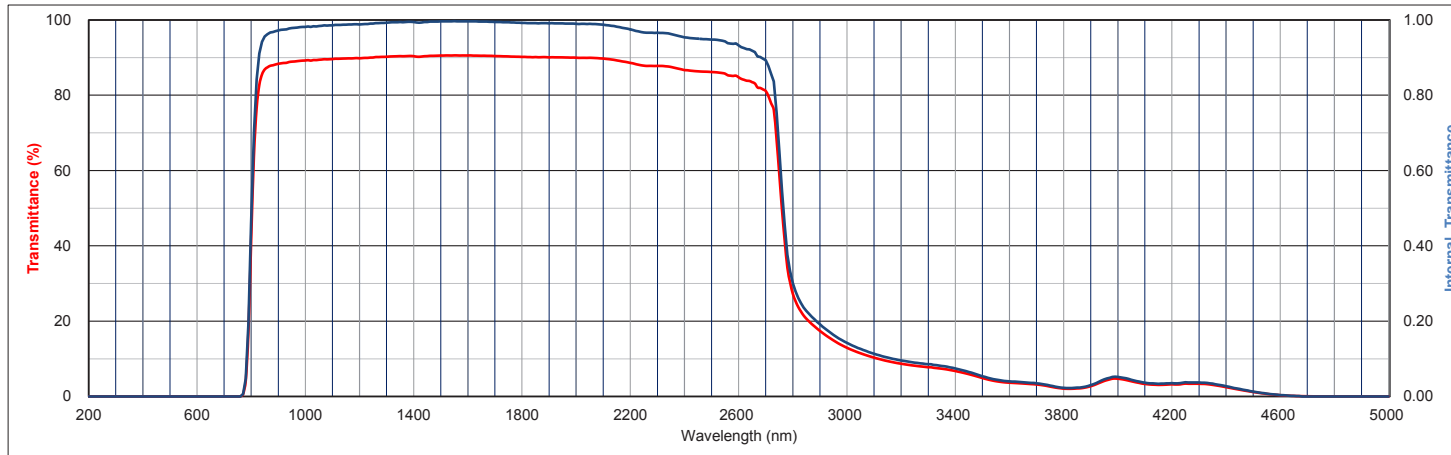
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Thickness 3.00 mm

W-IR800

Internal Transmittance (%)

λnm	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	
τ	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	
λnm	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	
τ	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	
λnm	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760	770	780	790	
τ	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	<1E-05	0.001	0.007	0.047	0.193
λnm	800	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950	960	970	980	990	
τ	0.460	0.702	0.842	0.911	0.942	0.956	0.962	0.967	0.968	0.970	0.972	0.973	0.975	0.975	0.977	0.978	0.979	0.980	0.981	0.981	
λnm	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	
τ	0.982	0.983	0.981	0.983	0.983	0.984	0.984	0.985	0.985	0.985	0.986	0.987	0.987	0.987	0.987	0.988	0.988	0.988	0.988	0.988	
λnm	1200	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370	1380	1390	
τ	0.988	0.989	0.989	0.989	0.990	0.990	0.992	0.992	0.992	0.992	0.993	0.993	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.995	0.995
λnm	1400	1410	1420	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590	
τ	0.994	0.993	0.993	0.993	0.994	0.994	0.995	0.995	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.997	0.996	0.996	0.996	0.996	
λnm	1600	1610	1620	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750	1760	1770	1780	1790	
τ	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.995	0.995	0.995	0.995	0.994	0.994	0.994	0.994	0.994	0.993	0.993	0.993	0.993	
λnm	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	
τ	0.992	0.992	0.992	0.992	0.991	0.992	0.991	0.991	0.992	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.990	0.990	0.990	0.990	
λnm	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	
τ	0.990	0.990	0.987	0.982	0.975	0.967	0.966	0.963	0.954	0.950	0.948	0.943	0.932	0.918	0.893	0.651	0.300	0.227	0.192	0.164	
λnm	3000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650	3700	3750	3800	3850	3900	3950	
τ	0.142	0.126	0.113	0.103	0.096	0.090	0.085	0.081	0.074	0.065	0.054	0.045	0.040	0.038	0.035	0.029	0.023	0.023	0.030	0.045	
λnm	4000	4050	4100	4150	4200	4250	4300	4350	4400	4450	4500	4550	4600	4650	4700	4750	4800	4850	4900	4950	
τ	0.052	0.044	0.037	0.034	0.035	0.037	0.037	0.034	0.027	0.020	0.013	0.008	0.004	0.002	0.001	0.001	<1E-05	<1E-05	<1E-05	<1E-05	
λnm	5000																				
τ	<1E-05																				



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