Barberini
High Performance Glass Sunlenses

OPTICAL GLASS LENS	H2F Phtochromic glass lenses	8	CUSTOMER BARBERINI SPA
XDF DARK GREY - H2F BROWN V 16			TECHNICAL DATA SHEET N. HF219
			GLASS CODE: 92HY06c0
			DATE: 24/03/2015

Base:	6	Coating:	H2F BROWN V 16				
Thickness:	1.9 mm	Polarization Ratio:	0,00%	(min 8:1)			
Hardening:	Chemically	Degree of Polarization:	0,00		Photochromic Ratio:	PASS	1,90% (min 1.25)
Optical Centre:	Centre	Reflection factor:			Photochromic Interval:		0,47

This sunglare filter is conform to the following International Norm:

European Norm: ISO 12312-1 2013

		Light				Dark			
		Filter Category: 2			Medium tint	Filter Category: 3			Dark tint
TV	(mean 380 ÷ 780 nm)	**25,25%**				**13,24%**			
TSB	(mean 380 ÷ 500 nm)	**13,49%**				**6,85%**			
TSIR	(mean 780 ÷ 2000 nm)	**76,40%**	(max TV)		**NO IR PROTECTION**		(max TV)		
TSUV	(mean 280 ÷ 380 nm)	**1,58%**				**0,72%**			
TSUVA	(mean 315 ÷ 380 nm)	**2,45%**	(max 0,5 TV)	12,62%	**PASS**	**1,12%**	(max 0,5 Tv)	6,62%	**PASS**
TSUVB	(mean 280 ÷ 315 nm)	**0,00%**	(max 0,05 TV)	1,26%	**PASS**	**0,00%**	(max 0,05 TV)	0,66%	**PASS**
TVIS	(peak min 475 ÷ 650 nm)	**14,14%**	(min 0,2 Tv)	5,05%	**PASS**	**7,19%**	(min 0,2 Tv)	2,64%	**PASS**
	Qgreen	**0,89**	(min. = 0,60)		**PASS**	**0,87**	(min.= 0,60)		**PASS**
	Qyellow	**1,19**	(min. = 0,60)		**PASS**	**1,21**	(min.= 0,60)		**PASS**
	Qred	**1,49**	(min. = 0,80)		**PASS**	**1,60**	(min.= 0,80)		**PASS**
	Qblue	**0,75**	(min. = 0,60)		**PASS**	**0,75**	(min.= 0,60)		**PASS**

Suitable for driving and road use - Not suitable for driving at night or under condition of dull light

American Norm: ANSI Z80.3-2010

Primary function and shade general purpose

TV	(mean 380 ÷ 780 nm)	**25,36%**	(8<=Tv<40)		**PASS**
TSB	(mean 380 ÷ 500 nm)	**13,49%**			
TSUVB	(mean 280 ÷ 315 nm)				
	normal use	**0,00%**	(<=1/8Tv)	3,17%	**PASS**
	high and prolonged exposure	**0,00%**	(max 1%)	0,25%	**PASS**
TSUVA	(mean 315 ÷ 380 nm)				
	normal use	**3,51%**	(max Tv)	25,36%	**PASS**
	high and prolonged exposure	**3,51%**	(max 0.5 TV)	12,68%	**PASS**
TSIR	(mean 780 ÷ 1400 nm)	**76,99%**	No requirement		
TVIS	(peak min 475 ÷ 650 nm)	**14,14%**	(min 0,2 TV)	5,05%	**PASS**

Color limits:

Chromaticity (D65)			**PASS**
Yellow traffic signals	**x=0,6009**	**y=0,3980**	**PASS**
Green traffic signals	**x=0,2517**	**y=0,4669**	**PASS**

Traffic signal trasmittance:

Red signal	**41,10%**	(>= 8%)	**PASS**
Yellow signal	**30,91%**	(>= 6%)	**PASS**
Green signal	**21,67%**	(>= 6%)	**PASS**

Medium to dark

Australian Norm: AS/NZS 1067:2009

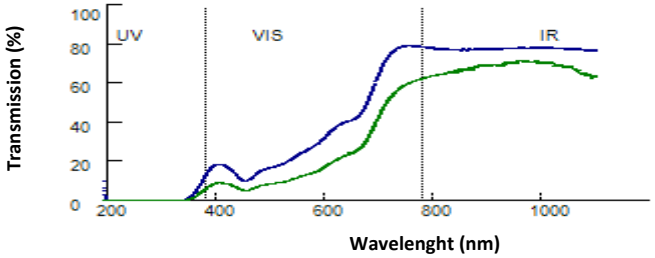
TV	(mean 380 ÷ 780 nm)	**25,25%**			
TSB	(mean 380 ÷ 500 nm)	**13,49%**			
TSIR	(mean 780 ÷ 2000 nm)	**76,40%**			
TSUV	(mean 280 ÷ 400 nm)	**2,70%**			
TSUVA	(mean 315 ÷ 400 nm)	**4,02%**	(max Tv)	25,25%	**PASS**
TSUVB	(mean 280 ÷ 315 nm)	**0,00%**	(max Tv)	1,26%	**PASS**
TSUVB1	(peak max 315 ÷ 350 nm)	**1,75%**	(max 0,5 Tv)	12,62%	**PASS**
TVIS	(peak min 450 ÷ 650 nm)	**10,13%**	(min 0,2 Tv)	5,05%	**PASS**

Filter Category: **2**

Medium sunglare reduction

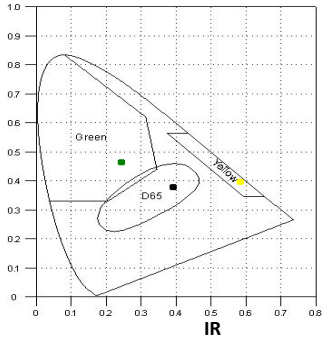
Not Suitable for driving at night

Qgreen	**0,85**	(min. = 0,60)		**PASS**
Qyellow	**1,23**	(min. = 0,80)		**PASS**
Qred	**1,48**	(min. = 0,80)		**PASS**
Qblue	**0,86**	(min. = 0,70)		**PASS**



D65 : **x=0,4043** **y=0,3806**

C : **x=0,4027** **y=0,3714**



Spectral Data:

UV				VIS								IR			
nm	**%**	**nm**	**%**	**nm**	**%**	**nm**	**%**	**nm**	**%**	**nm**	**%**	**nm**	**%**	**nm**	**%**
200	0,00	300	0,02	390	17,14	490	16,28	590	30,17	690	58,91	800	77,98	1300	73,77
210	0,00	310	0,00	400	18,59	500	17,05	600	32,72	700	65,72	850	77,61	1400	72,31
220	0,01	320	0,00	410	18,38	510	17,75	610	35,55	710	71,26	900	77,49	1500	73,36
230	0,03	330	0,05	420	17,06	520	18,76	620	37,89	720	75,22	950	78,33	1600	73,06
240	0,01	340	0,39	430	14,83	530	20,10	630	39,55	730	77,53	1000	78,07	1700	73,44
250	0,01	350	1,75	440	11,86	540	21,73	640	40,48	740	78,71	1050	77,44	1800	73,91
260	0,02	360	4,58	450	10,13	550	23,45	650	41,44	750	79,40	1100	77,08	1900	75,09
270	0,01	370	8,94	460	10,94	560	25,12	660	43,24	760	79,39	1150	75,38	2000	76,23
280	0,02	380	13,62	470	13,06	570	26,58	670	46,67	770	79,21	1200	74,96		
290	0,00			480	15,04	580	28,15	680	52,06	780	78,63				

Data subject to change without notice

Responsible Alfonso De Luca