OHARA

PBM2R

620365
624362

Refractive Index	n_d	**1,62004** 1,620040	Abbe Number	ν_d **36,46**	Dispersion $n_F - n_C$ 0,017006
Refractive Index	n_e	1,624070	Abbe Number	ν_e 36,20	Dispersion $n_{F'} - n_{C'}$ 0,017241

Refractive Indices

	λ (μm)	
n_{2325}	2.32542	1,58479
n_{1970}	1.97009	1,58968
n_{1530}	1.52958	1,59521
n_{1129}	1.12864	1,60077
n_t	1.01398	1,60284
n_s	0.85211	1,60675
$n_{A'}$	0.76819	1,60959
n_r	0.70652	1,61229
n_C	0.65627	**1,61505**
$n_{C'}$	0.64385	1,61583
n_{He-Ne}	0.6328	1,61657
n_D	0.58929	1,61989
n_d	0.58756	**1,62004**
n_e	0.54607	1,62407
n_F	0.48613	**1,63205**
$n_{F'}$	0.47999	1,63307
n_{He-Cd}	0.44157	1,64063
n_g	0.435835	**1,64198**
n_h	0.404656	1,65059
n_i	0.365015	
n_{334}	0.334148	
n_{326}	0.326106	

Thermal Properties

Strain Point	**StP**	373
Annealing Point	**AP**	409
Transformation Temperature	**Tg**	437
Yield Point	**At**	467
Softening Point	**SP**	574
Expansion Coefficient (10^{-7} /°C)	α (-30~+70°C)	89
	α (+100~+300°C)	98
Thermal Conductivity (W/m·K)	**k**	0,800

Mechanical Properties

Young's Modulus (10^8N/m^2)	**E**	575
Rigidity Modulus (10^8N/m^2)	**G**	234
Poisson's Ratio	σ	0,227
Knoop Hardness	**Hk**	430 [4]
Abrasion	**Aa**	161
Photoelastic Constant (nm/cm/10^5 Pa)	β	2,73

Partial Dispersions

$n_C - n_t$	0,012204
$n_C - n_{A'}$	0,005452
$n_d - n_C$	0,004993
$n_e - n_C$	0,009023
$n_g - n_d$	0,021935
$n_g - n_F$	0,009922
$n_h - n_g$	0,008615
$n_i - n_g$	
$n_{C'} - n_t$	0,012987
$n_e - n_{C'}$	0,008240
$n_{F'} - n_e$	0,009001
$n_i - n_{F'}$	

Deviation of Relative Partial Dispersions

$\Delta\theta_{C,t}$	-0,0001
$\Delta\theta_{C,A'}$	0,0006
$\Delta\theta_{g,d}$	0,0008
$\Delta\theta_{g,F}$	0,0009
$\Delta\theta_{i,g}$	

Constants of Dispersion Formula

326 ~ 1129 nm	
A_1	1,33196025
A_2	$2,22769377 \cdot 10^{-1}$
A_3	1,07588306
B_1	$9,60250965 \cdot 10^{-3}$
B_2	$4,64137676 \cdot 10^{-2}$
B_3	$1,27998850 \cdot 10^{2}$
1129 ~ 2325 nm	
A_1	
A_2	
A_3	
B_1	
B_2	
B_3	

Chemical Properties

Water Resistance (Powder) Group	**RW(P)**	1
Acid Resistance (Powder) Group	**RA(P)**	1
Weathering Resistance (Surface) Group	**W(S)**	1
Acid Resistance (Surface) Group	**SR**	1,0
Phosphate Resistance	**PR**	2,0

Relative Partial Dispersions

$\theta_{C,t}$	0,7176
$\theta_{C,A'}$	0,3206
$\theta_{d,C}$	0,2936
$\theta_{e,C}$	0,5306
$\theta_{g,d}$	1,2898
$\theta_{g,F}$	0,5834
$\theta_{h,g}$	0,5066
$\theta_{i,g}$	
$\theta'_{C',t}$	0,7533
$\theta'_{e,C'}$	0,4779
$\theta'_{F',e}$	0,5221
$\theta'_{i,F'}$	

Other Properties

Bubble Quality Group	**B**	
Specific Gravity	**d**	3,59
Coloring	λ_{80} / λ_{70}	445
	λ_5	385

Internal Transmittance

λ (nm)	τ i 10 mm	τ i 25 mm
280		
290		
300		
310		
320		
330		
340		
350		
360		
365		
370		
380	0,120	
390	0,275	
400	0,451	
420	0,761	
440	0,900	
460	0,953	
480	0,972	
500	0,981	
550	0,991	
600	0,995	
650	0,997	
700	0,999	
800	0,999	
900	0,999	
1000	0,999	
1200	0,999	
1400	0,999	
1600	0,997	
1800	0,980	
2000	0,958	
2200	0,906	
2400	0,872	

Temperature Coefficients of Refractive Index

Range of Temperature (°C)	dn / dt relative (10^6 /°C) t	C'	He-Ne	D	e	F'	g	i
-40 ~ -20	2,1	3,0	3,0	3,3	3,7	4,5	5,4	
-20 ~ 0	2,3	3,1	3,2	3,5	3,8	4,7	5,0	
0 ~ 20	2,4	3,3	3,3	3,6	4,0	4,9	5,8	
20 ~ 40	2,4	3,4	3,4	3,7	4,1	5,0	6,0	
40 ~ 60	2,6	3,5	3,6	3,9	4,3	5,2	6,3	
60 ~ 80	2,8	3,8	3,9	4,2	4,6	5,6	6,6	