S-TIM22

Code(d) **648338**
Code(e) **652335**

Refractive Index	n_d	**1,64769** 1,647689	Abbe Number	ν_d	**33,79**	Dispersion	n_{F}-n_{C} **0,019167**
Refractive Index	n_e	1,652221	Abbe Number	ν_e	33,53	Dispersion	$n_{F'}$-$n_{C'}$ 0,019451

Refractive Indices		
λ(μm)		
n_{2325}	2.32542	1,60753
n_{1970}	1.97009	1,61325
n_{1530}	1.52958	1,61971
n_{1129}	1.12864	1,62609
n_t	1.01398	1,62844
n_s	0.85211	1,63283
$n_{A'}$	0.76819	1,63600
n_r	0.70652	1,63901
n_C	0.65627	1,64210
$n_{C'}$	0.64385	1,64297
$n_{He\text{-}Ne}$	0.6328	1,64379
n_D	0.58929	1,64752
n_d	0.58756	1,64769
n_e	0.54607	1,65222
n_F	0.48613	1,66126
$n_{F'}$	0.47999	1,66242
$n_{He\text{-}Cd}$	0.44157	1,67109
n_g	0.435835	1,67265
n_h	0.404656	1,68269
n_i	0.365015	

Partial Dispersions	
n_C-n_t	0,013658
n_C-$n_{A'}$	0,006092
n_d-n_C	0,005593
n_e-n_C	0,010125
n_g-n_d	0,024956
n_g-n_F	0,011382
n_h-n_g	0,010042
n_i-n_g	
$n_{C'}$-n_t	0,014533
n_e-$n_{C'}$	0,009250
$n_{F'}$-n_e	0,010201
n_i-$n_{F'}$	

Coloring			
λ_{80}	395	λ_5	360
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	386	$\lambda_{0.05}$	360

CCI		
B	G	R
0,00	1,48	1,49

Internal Transmittance	
λ(nm)	τ 10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	0,04
370	0,37
380	0,70
390	0,86
400	0,928
420	0,970
440	0,981
460	0,986
480	0,989
500	0,991
550	0,996
600	0,996
650	0,995
700	0,996
800	0,998
900	0,997
1000	0,997
1200	0,996
1400	0,993
1600	0,991
1800	0,981
2000	0,970
2200	0,934
2400	0,916

Relative Partial Dispersion	
$\theta_{C,t}$	0,7126
$\theta_{C,A'}$	0,3178
$\theta_{d,C}$	0,2918
$\theta_{e,C}$	0,5283
$\theta_{g,d}$	1,3020
$\theta_{g,F}$	0,5938
$\theta_{h,g}$	0,5239
$\theta_{i,g}$	
$\theta'_{C',t}$	0,7472
$\theta'_{e,C'}$	0,4756
$\theta'_{F',e}$	0,5244
$\theta'_{i,F'}$	

Constants of Dispersion Formula	
A_1	1,44222294E+00
A_2	1,94432265E-01
A_3	1,74092482E+00
B_1	1,04249404E-02
B_2	5,50235257E-02
B_3	1,69710769E+02

Deviation of Relative Dispersions	
$\Delta\theta_{C,t}$	0,0074
$\Delta\theta_{C,A'}$	0,0010
$\Delta\theta_{g,d}$	0,0075
$\Delta\theta_{g,F}$	0,0070
$\Delta\theta_{i,g}$	

Chemical Properties	
Water Resistance (Powder) Group RW(P)	1
Acid Resistance (Powder) Group RA(P)	1
Weathering Resistance (Surface) Group	1~2
Acid Resistance (Surface) Group SR	1.0
Phosphate Resistance PR	1.0

Thermal Properties		
Strain Point StP (°C)		545
Annealing Point AP (°C)		572
Transformation Temperature Tg (°C)		593
Yield Point At (°C)		624
Softening Point SP (°C)		692
Expansion Coefficients α (10^{-7}/°C)	(-30~+70°C)	83
	(+100~+300°C)	98
Thermal Conductivity k (W/m·K)		1,02

Mechanical Properties		
Young's Modulus E (10^8N/m^2)	798	
Rigidity Modulus G (10^8N/m^2)	322	
Poisson's Ratio σ	0,238	
Knoop Hardness Hk [Class]	560	6
Abrasion Aa	149	
Photoelastic Constant β (nm/cm/10^5Pa)		2,82

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

Other Properties	
Bubble Quality Group B	
Density d	2,79
Remarks	