TRY122 (PBM2R) In Development

Code(d) **620365**

Code(e) **624362**

Refractive Index	n_d	**1.62004** 1.620040	Abbe Number	v_d	**(36.5)** **36.46**	Dispersion	n_F-n_C	**(0.017)** **0.017006**
Refractive Index	n_e	1.624070	Abbe Number	v_e	36.20	Dispersion	$n_{F'}$-$n_{C'}$	1.017241

Refractive Indicies		
λ(μm)		
n_{2325}	2.325420	1.58479
n_{1970}	1.970090	1.58968
n_{1530}	1.529580	1.59521
n_{1129}	1.128640	1.60077
n_t	1.013980	1.60284
n_s	0.852110	1.60675
$n_{A'}$	0.768190	1.60959
n_r	0.706520	1.61229
n_C	0.656270	**1.61505**
$n_{C'}$	0.643850	1.61583
n_{He-Ne}	0.632800	1.61657
n_D	0.589290	1.61989
n_d	0.587560	**1.62004**
n_e	0.546070	1.62407
n_F	0.486130	**1.63205**
$n_{F'}$	0.479990	1.63307
n_{He-Cd}	0.441570	1.64063
n_g	0.435835	**1.64198**
n_h	0.404656	1.65059
n_i	0.365015	-

Deviation of Relative Dispersions Δθfrom "Normal"	
$\Delta\theta_{C,t}$	-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	
A_1	1.33196025E+00
A_2	2.22769377E-01
A_3	1.07588306E+00
B_1	9.60250965E-03
B_2	4.64137676E-02
B_3	1.27998850E+02

Other Properties	
Bubble Quality Group	
Specific Gravity	3.59
Remarks	

Partial Dispersions	
n_C-nt	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-$n_{F'}$	-

Thermal Properties		
Strain Point StP (°C)		373
Annealing Point AP (°C)		409
Transformation Temperature Tg (°C)		437
Yeild Point At (°C)		467
Softening Point SP (°C)		574
Expansion Coefficients	(-30~+70°C)	89
α (10-7/°C)	(+100~+300°C)	98
Thermal Conductivity k (W/m•K)		0.8

Mechanical Properties		
Young's Modulus E (10^9N/m^2)	575	
Rigidity Modulus G (10^9N/m^2)	234	
Poisson's Ratio σ	0.227	
Knoop Hardness Hk[Class]	430	4
Abrasion Aa	161	
Photoelastic Constant β (nm/cm/10^5Pa)		2.73

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
$\theta'_{i,F}$	-

Coloring			
λ_{80}	445	λ_5	385
λ_{70}			

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	dn/dt relative (10-6/℃)						
	t	C'	He-Ne	D	e	F'	g
-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	5.6
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

Internal Transmittance	
λ(nm)	τ10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	
370	
380	0.12
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