S-LAL54Q

Code(d) **651562**
Code(e) **654560**

Refractive Index	n_d	**1,65100** 1,651000	Abbe Number	ν_d	**56,24**	Dispersion	$n_{F'}-n_{C'}$ **0,011576**
Refractive Index	n_e	1,653761	Abbe Number	ν_e	56,02	Dispersion	$n_{F'}-n_{C'}$ 0,011670

Refractive Indices		
λ(μm)		
n_{2325}	2.32542	1,61532
n_{1970}	1.97009	1,62234
n_{1530}	1.52958	1,62966
n_{1129}	1.12864	1,63584
n_t	1.01398	1,63781
n_s	0.85211	1,64117
$n_{A'}$	0.76819	1,64341
n_r	0.70652	1,64545
n_C	0.65627	1,64747
$n_{C'}$	0.64385	1,64803
n_{He-Ne}	0.6328	1,64856
n_D	0.58929	1,65090
n_d	0.58756	1,65100
n_e	0.54607	1,65376
n_F	0.48613	1,65905
$n_{F'}$	0.47999	1,65970
n_{He-Cd}	0.44157	1,66449
n_g	0.435835	1,66532
n_h	0.404656	1,67053
n_i	0.365015	1,67939

Partial Dispersions	
n_C-n_t	0,009660
$n_C-n_{A'}$	0,004056
n_d-n_C	0,003530
n_e-n_C	0,006291
n_g-n_d	0,014320
n_g-n_F	0,006274
n_h-n_g	0,005206
n_i-n_g	0,014075
$n_{C'}-n_t$	0,010223
$n_e-n_{C'}$	0,005728
$n_{F'}-n_e$	0,005942
$n_i-n_{F'}$	0,019692

Coloring			
λ_{80}	385	λ_5	
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	367	$\lambda_{0.05}$	311

CCI		
B	G	R
0,00	0,62	0,63

Constants of Dispersion Formula	
A_1	9,20085087E-01
A_2	7,58646115E-01
A_3	1,07073096E+00
B_1	1,60829667E-02
B_2	2,92059306E-03
B_3	8,51211200E+01

Relative Partial Dispersion	
$\theta_{C,t}$	0,8345
$\theta_{C,A'}$	0,3504
$\theta_{d,C}$	0,3049
$\theta_{e,C}$	0,5435
$\theta_{g,d}$	1,2370
$\theta_{g,F}$	0,5420
$\theta_{h,g}$	0,4497
$\theta_{i,g}$	1,2159
$\theta'_{C',t}$	0,8760
$\theta'_{e,C'}$	0,4908
$\theta'_{F',e}$	0,5092
$\theta'_{i,F'}$	1,6874

Internal Transmittance	
λ(nm)	τ 10mm
280	
290	
300	
310	0,04
320	0,11
330	0,24
340	0,41
350	0,58
360	0,73
370	0,83
380	0,90
390	0,938
400	0,962
420	0,984
440	0,991
460	0,995
480	0,997
500	0,997
550	0,998
600	0,997
650	0,998
700	0,997
800	0,997
900	0,995
1000	0,993
1200	0,994
1400	0,976
1600	0,986
1800	0,973
2000	0,942
2200	0,81
2400	0,58

Chemical Properties	
Water Resistance (Powder) Group RW(P)	1
Acid Resistance (Powder) Group RA(P)	3
Weathering Resistance (Surface) Group	2
Acid Resistance (Surface) Group SR	4.0
Phosphate Resistance PR	3.0

Deviation of Relative Dispersions	
$\Delta\theta_{C,t}$	0,0239
$\Delta\theta_{C,A'}$	0,0064
$\Delta\theta_{g,d}$	-0,0109
$\Delta\theta_{g,F}$	-0,0085
$\Delta\theta_{i,g}$	-0,0382

Thermal Properties		
Strain Point StP (°C)		646
Annealing Point AP (°C)		679
Transformation Temperature Tg (°C)		688
Yield Point At (°C)		718
Softening Point SP (°C)		748
Expansion Coefficients α (10^{-7}/°C)	(-30~+70°C)	43
	(+100~+300°C)	55
Thermal Conductivity k (W/m·K)		0,921

Mechanical Properties		
Young's Modulus E (10^8N/m^2)	1019	
Rigidity Modulus G (10^8N/m^2)	396	
Poisson's Ratio σ	0,287	
Knoop Hardness Hk [Class]	680	7
Abrasion Aa	61	
Photoelastic Constant β (nm/cm/10^5Pa)		2,17

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	5,9	6,4	6,4	6,5	6,7	7,0	7,3
-20~ 0	5,9	6,3	6,3	6,5	6,6	7,0	7,3
0~20	5,9	6,3	6,4	6,5	6,7	7,0	7,4
20~40	5,9	6,4	6,4	6,6	6,7	7,1	7,5
40~60	6,1	6,5	6,6	6,7	6,9	7,3	7,7
60~80	6,3	6,8	6,8	6,9	7,1	7,5	7,9

Other Properties	
Bubble Quality Group B	
Density d	3,36
Remarks	

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Date 12/2019