

Оптическое стекло LLF, LF, F

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +(727)345-47-04

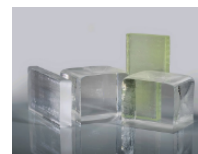
Беларусь +(375)257-127-884

Узбекистан +998(71)205-18-59

Киргизия +996(312)96-26-47

эл.почта: sqh@nt-rt.ru || сайт: <https://schott.nt-rt.ru/>

Datasheet



LLF1
548458.294

$n_d = 1.54814$
 $n_e = 1.55099$

$v_d = 45.75$
 $v_e = 45.47$

$n_F - n_C = 0.011981$
 $n_{F'} - n_{C'} = 0.012118$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.51865
$n_{1970.1}$	1970.1	1.52354
$n_{1529.6}$	1529.6	1.52884
$n_{1060.0}$	1060.0	1.53470
n_t	1014.0	1.53541
n_s	852.1	1.53845
n_r	706.5	1.54256
n_C	656.3	1.54457
$n_{C'}$	643.8	1.54513
$n_{632.8}$	632.8	1.54566
n_D	589.3	1.54803
n_d	587.6	1.54814
n_e	546.1	1.55099
n_F	486.1	1.55655
$n_{F'}$	480.0	1.55725
n_g	435.8	1.56333
n_h	404.7	1.56911
n_i	365.0	1.57932
$n_{334.1}$	334.1	1.59092
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.216401250
B_2	0.133664540
B_3	0.883399468
C_1	0.008578072
C_2	0.0420143003
C_3	107.59306000

Constants of Formula for dn/dT

D_0	3.25E-07
D_1	1.74E-08
D_2	-6.12E-11
E_0	6.53E-07
E_1	2.58E-10
λ_{TK} [μm]	0.233

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	1.5	2.4	3.4	-0.6	0.3	1.3
+20/+40	1.9	2.9	3.9	0.6	1.5	2.5
+60/+80	2.0	3.0	4.1	1.0	2.0	3.0

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.76	0.50
2325	0.82	0.61
1970	0.93	0.84
1530	0.996	0.990
1060	0.998	0.996
700	0.999	0.997
660	0.998	0.996
620	0.998	0.996
580	0.999	0.997
546	0.999	0.997
500	0.998	0.996
460	0.998	0.996
436	0.998	0.996
420	0.998	0.995
405	0.998	0.994
400	0.997	0.993
390	0.997	0.992
380	0.995	0.988
370	0.994	0.984
365	0.992	0.981
350	0.982	0.955
334	0.92	0.81
320	0.62	0.30
310	0.24	0.01
300	0.02	
290	0.00	
280		
270		
260		
250		

Color Code

λ_{80} / λ_5 33/31

Remarks

lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	0.2537
$P_{C,s}$	0.5108
$P_{d,C}$	0.2983
$P_{e,d}$	0.2376
$P_{g,F}$	0.5660
$P_{i,h}$	0.8520

Relative Partial Dispersion P'

$P'_{s,t}$	0.2508
$P'_{C,s}$	0.5516
$P'_{d,C'}$	0.2484
$P'_{e,d}$	0.2349
$P'_{g,F'}$	0.5017
$P'_{i,h}$	0.8424

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	0.0025
$\Delta P_{C,s}$	0.0012
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0009
$\Delta P_{i,g}$	-0.0062

Chemical Properties

CR	1
FR	0
SR	1
AR	2
PR	1

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	8.1
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	9.2
T_g [°C]	431
T_{10}^{13} [°C]	426
$T_{10}^{7.6}$ [°C]	628
c_p [J/(g·K)]	0.650
λ [W/(m·K)]	0.990
ρ [g/cm ³]	2.94
E [10^3 N/mm ²]	60
μ	0.208
K [10^{-6} mm ² /N]	3.03
$HK_{0.1/20}$	450
HG	3

LLF1HTi 548459.294

$n_d = 1.54815$
 $n_e = 1.55099$

$v_d = 45.90$
 $v_e = 45.62$

$n_F - n_C = 0.011942$
 $n_F - n_C = 0.012078$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.51863
$n_{1970.1}$	1970.1	1.52354
$n_{1529.6}$	1529.6	1.52886
$n_{1060.0}$	1060.0	1.53473
n_t	1014.0	1.53544
n_s	852.1	1.53848
n_r	706.5	1.54259
n_C	656.3	1.54459
$n_{C'}$	643.8	1.54515
$n_{632.8}$	632.8	1.54568
n_D	589.3	1.54804
n_d	587.6	1.54815
n_e	546.1	1.55099
n_F	486.1	1.55653
$n_{F'}$	480.0	1.55723
n_g	435.8	1.56328
n_h	404.7	1.56904
n_i	365.0	1.57920
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.225104450
B_2	0.125155671
B_3	0.892236751
C_1	0.008704321
C_2	0.0427325235
C_3	108.04996800

Constants of Formula for dn/dT

D_0	2.55E-07
D_1	1.41E-08
D_2	-3.32E-11
E_0	6.74E-07
E_1	6.27E-10
λ_{TK} [μm]	0.227

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	1.7	2.6	3.5	-0.4	0.5	1.4
+20/+40	1.8	2.9	3.9	0.5	1.5	2.5
+60/+80	2.0	3.1	4.2	0.9	2.0	3.1

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.74	0.48
2325	0.80	0.58
1970	0.93	0.83
1530	0.996	0.990
1060	0.999	0.999
700	0.999	0.999
660	0.999	0.998
620	0.999	0.998
580	0.999	0.998
546	0.999	0.998
500	0.999	0.998
460	0.999	0.998
436	0.999	0.997
420	0.999	0.997
405	0.999	0.997
400	0.999	0.997
390	0.998	0.996
380	0.998	0.995
370	0.998	0.994
365	0.997	0.993
350	0.993	0.982
334	0.955	0.89
320	0.72	0.44
310	0.23	0.03
300	0.00	0.00
290		
280		
270		
260		
250		

Color Code

$\lambda_{80} / \lambda_{5}$ 33/31

Remarks

i-line glass

Relative Partial Dispersion P

$P_{s,t}$	0.2544
$P_{C,s}$	0.5114
$P_{d,C}$	0.2985
$P_{e,d}$	0.2376
$P_{g,F}$	0.5656
$P_{i,h}$	0.8512

Relative Partial Dispersion P'

$P'_{s,t}$	0.2515
$P'_{C,s}$	0.5523
$P'_{d,C'}$	0.2485
$P'_{e,d}$	0.2349
$P'_{g,F'}$	0.5014
$P'_{i,h}$	0.8416

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	0.0031
$\Delta P_{C,s}$	0.0015
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0010
$\Delta P_{i,g}$	-0.0062

Chemical Properties

CR	1
FR	0
SR	1
AR	2
PR	1

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	8.1
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	9.2
T_g [°C]	431
T_{10}^{13} [°C]	426
$T_{10}^{7.6}$ [°C]	628
c_p [J/(g·K)]	0.650
λ [W/(m·K)]	0.990
ρ [g/cm ³]	2.94
E [10^3 N/mm ²]	60
μ	0.208
K [10^{-6} mm ² /N]	3.03
$HK_{0.1/20}$	450

LF5 581409.322

$n_d = 1.58144$

$v_d = 40.85$

$n_F - n_C = 0.014233$

$n_e = 1.58482$

$v_e = 40.57$

$n_F - n_C = 0.014413$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54966
$n_{1970.1}$	1970.1	1.55445
$n_{1529.6}$	1529.6	1.55975
$n_{1060.0}$	1060.0	1.56594
n_t	1014.0	1.56672
n_s	852.1	1.57014
n_r	706.5	1.57489
n_C	656.3	1.57723
$n_{C'}$	643.8	1.57789
$n_{632.8}$	632.8	1.57851
n_D	589.3	1.58132
n_d	587.6	1.58144
n_e	546.1	1.58482
n_F	486.1	1.59146
$n_{F'}$	480.0	1.59231
n_g	435.8	1.59964
n_h	404.7	1.60668
n_i	365.0	1.61926
$n_{334.1}$	334.1	1.63380
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.280356280
B_2	0.163505973
B_3	0.893930112
C_1	0.009298544
C_2	0.0449135769
C_3	110.49368500

Constants of Formula for dn/dT

D_0	-2.27E-06
D_1	9.71E-09
D_2	-2.83E-11
E_0	8.36E-07
E_1	9.95E-10
λ_{TK} [μm]	0.228

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	0.8	1.9	3.1	-1.3	-0.2	0.9
+20/+40	0.8	2.0	3.4	-0.6	0.7	2.0
+60/+80	0.8	2.2	3.7	-0.3	1.1	2.6

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500		
2325	0.85	0.66
1970	0.95	0.87
1530	0.997	0.992
1060	0.999	0.998
700	0.999	0.998
660	0.999	0.998
620	0.999	0.998
580	0.999	0.997
546	0.999	0.997
500	0.998	0.996
460	0.998	0.995
436	0.998	0.994
420	0.997	0.993
405	0.997	0.992
400	0.997	0.992
390	0.994	0.984
380	0.989	0.973
370	0.984	0.961
365	0.981	0.954
350	0.950	0.88
334	0.80	0.57
320	0.32	0.04
310	0.04	
300		
290		
280		
270		
260		
250		

Color Code

$\lambda_{80} / \lambda_{5}$ 34/31

Remarks

lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	0.2401
$P_{C,s}$	0.4981
$P_{d,C}$	0.2959
$P_{e,d}$	0.2373
$P_{g,F}$	0.5748
$P_{i,h}$	0.8836

Relative Partial Dispersion P'

$P'_{s,t}$	0.2371
$P'_{C,s}$	0.5378
$P'_{d,C'}$	0.2462
$P'_{e,d}$	0.2343
$P'_{g,F'}$	0.5091
$P'_{i,h}$	0.8726

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	-0.0006
$\Delta P_{C,s}$	0.0000
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0037

Chemical Properties

CR	2
FR	0
SR	1
AR	2.3
PR	2

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	9.1
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	10.6
T_g [°C]	419
T_{10}^{13} [°C]	411
$T_{10}^{7.6}$ [°C]	585
c_p [J/(g·K)]	0.657
λ [W/(m·K)]	0.866
ρ [g/cm ³]	3.22
E [10^3 N/mm ²]	59
μ	0.223
K [10^{-6} mm ² /N]	2.80
$HK_{0.1/20}$	450
HG	2

LF5HTi 581409.322

$n_d = 1.58144$

$v_d = 40.89$

$n_F - n_C = 0.014220$

$n_e = 1.58482$

$v_e = 40.61$

$n_F - n_C = 0.014400$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54970
$n_{1970.1}$	1970.1	1.55448
$n_{1529.6}$	1529.6	1.55978
$n_{1060.0}$	1060.0	1.56596
n_t	1014.0	1.56674
n_s	852.1	1.57015
n_r	706.5	1.57490
n_C	656.3	1.57724
$n_{C'}$	643.8	1.57790
$n_{632.8}$	632.8	1.57852
n_D	589.3	1.58132
n_d	587.6	1.58144
n_e	546.1	1.58482
n_F	486.1	1.59145
$n_{F'}$	480.0	1.59230
n_g	435.8	1.59963
n_h	404.7	1.60665
n_i	365.0	1.61921
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.285529240
B_2	0.158357622
B_3	0.892175122
C_1	0.009398863
C_2	0.0452566659
C_3	110.54482900

Constants of Formula for dn/dT

D_0	-2.26E-06
D_1	1.17E-08
D_2	-4.14E-11
E_0	8.24E-07
E_1	7.78E-10
λ_{TK} [μm]	0.232

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	0.7	1.8	3.0	-1.4	-0.3	0.8
+20/+40	0.8	2.0	3.4	-0.6	0.7	2.0
+60/+80	0.8	2.2	3.6	-0.3	1.1	2.5

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.78	0.53
2325	0.83	0.63
1970	0.94	0.85
1530	0.996	0.991
1060	0.999	0.999
700	0.999	0.999
660	0.999	0.999
620	0.999	0.999
580	0.999	0.999
546	0.999	0.999
500	0.999	0.998
460	0.999	0.998
436	0.999	0.998
420	0.999	0.997
405	0.999	0.997
400	0.999	0.997
390	0.999	0.996
380	0.998	0.995
370	0.997	0.993
365	0.996	0.991
350	0.985	0.962
334	0.89	0.75
320	0.38	0.09
310	0.02	0.00
300	0.00	
290		
280		
270		
260		
250		

Color Code

$\lambda_{80} / \lambda_{5}$ 33/31

Remarks

i-line glass
lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	0.2401
$P_{C,s}$	0.4982
$P_{d,C}$	0.2959
$P_{e,d}$	0.2373
$P_{g,F}$	0.5746
$P_{i,h}$	0.8831
Relative Partial Dispersion P'	
$P'_{s,t}$	0.2371
$P'_{C,s}$	0.5380
$P'_{d,C'}$	0.2462
$P'_{e,d}$	0.2343
$P'_{g,F'}$	0.5090
$P'_{i,h}$	0.8721

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	-0.0006
$\Delta P_{C,s}$	0.0000
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0004
$\Delta P_{i,g}$	-0.0041

Chemical Properties

CR	2
FR	0
SR	1
AR	2.3
PR	2

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	9.1
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	10.6
T_g [°C]	419
T_{10}^{13} [°C]	411
$T_{10}^{7.6}$ [°C]	585
c_p [J/(g·K)]	0.657
λ [W/(m·K)]	0.866
ρ [g/cm ³]	3.22
E [10^3 N/mm ²]	59
μ	0.223
K [10^{-6} mm ² /N]	2.80
$HK_{0.1/20}$	450

N-F2 620364.265

$n_d = 1.62005$

$v_d = 36.43$

$n_F - n_C = 0.017020$

$n_e = 1.62408$

$v_e = 36.16$

$n_{F'} - n_{C'} = 0.017258$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58136
$n_{1970.1}$	1970.1	1.58744
$n_{1529.6}$	1529.6	1.59410
$n_{1060.0}$	1060.0	1.60167
n_t	1014.0	1.60261
n_s	852.1	1.60667
n_r	706.5	1.61229
n_C	656.3	1.61506
$n_{C'}$	643.8	1.61584
$n_{632.8}$	632.8	1.61658
n_D	589.3	1.61990
n_d	587.6	1.62005
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64209
n_h	404.7	1.65087
n_i	365.0	
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.397570370
B_2	0.159201403
B_3	1.268654300
C_1	0.009959061
C_2	0.0546931752
C_3	119.24834600

Constants of Formula for dn/dT

D_0	4.62E-07
D_1	1.17E-08
D_2	-2.35E-11
E_0	7.47E-07
E_1	9.81E-10
λ_{TK} [μm]	0.263

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	2.0	3.2	4.6	-0.1	1.0	2.3
+20/+40	2.1	3.5	5.1	0.7	2.0	3.6
+60/+80	2.2	3.7	5.5	1.1	2.6	4.4

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.75	0.48
2325	0.84	0.64
1970	0.950	0.88
1530	0.991	0.977
1060	0.998	0.996
700	0.997	0.992
660	0.996	0.990
620	0.996	0.991
580	0.997	0.993
546	0.997	0.992
500	0.994	0.984
460	0.989	0.973
436	0.985	0.963
420	0.980	0.950
405	0.959	0.90
400	0.95	0.87
390	0.89	0.75
380	0.76	0.51
370	0.48	0.16
365	0.28	0.04
350	0.10	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80} / λ_5 39/36

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2389
$P_{C,s}$	0.4925
$P_{d,C}$	0.2935
$P_{e,d}$	0.2366
$P_{g,F}$	0.5881
$P_{i,h}$	

Relative Partial Dispersion P'

$P'_{s,t}$	0.2356
$P'_{C,s}$	0.5312
$P'_{d,C'}$	0.2440
$P'_{e,d}$	0.2334
$P'_{g,F'}$	0.5208
$P'_{i,h}$	

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	0.0137
$\Delta P_{C,s}$	0.0047
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0056
$\Delta P_{i,g}$	

Chemical Properties

CR	1
FR	0
SR	1
AR	1
PR	1

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	7.8
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	9.1
T_g [°C]	569
T_{10}^{13} [°C]	567
$T_{10}^{7.6}$ [°C]	686
c_p [J/(g·K)]	0.810
λ [W/(m·K)]	1.050
ρ [g/cm ³]	2.65
E [10^3 N/mm ²]	82
μ	0.228
K [10^{-6} mm ² /N]	3.03
$HK_{0.1/20}$	600
HG	2

F2HT 620364.360

$n_d = 1.62004$

$v_d = 36.37$

$n_F - n_C = 0.017050$

$n_e = 1.62408$

$v_e = 36.11$

$n_F - n_C = 0.017284$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58465
$n_{1970.1}$	1970.1	1.58958
$n_{1529.6}$	1529.6	1.59513
$n_{1060.0}$	1060.0	1.60190
n_t	1014.0	1.60279
n_s	852.1	1.60671
n_r	706.5	1.61227
n_C	656.3	1.61503
$n_{C'}$	643.8	1.61582
$n_{632.8}$	632.8	1.61656
n_D	589.3	1.61989
n_d	587.6	1.62004
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64202
n_h	404.7	1.65064
n_i	365.0	1.66623
$n_{334.1}$	334.1	1.68455
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.345333590
B_2	0.209073176
B_3	0.937357162
C_1	0.009977439
C_2	0.0470450767
C_3	111.88676400

Constants of Formula for dn/dT

D_0	1.51E-06
D_1	1.56E-08
D_2	-2.78E-11
E_0	9.34E-07
E_1	1.04E-09
λ_{TK} [μm]	0.250

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	2.4	3.9	5.5	0.3	1.6	3.2
+20/+40	2.7	4.4	6.3	1.3	3.0	4.8
+60/+80	3.0	4.8	6.8	1.9	3.7	5.7

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.870	0.710
2325	0.910	0.800
1970	0.968	0.920
1530	0.998	0.994
1060	0.999	0.998
700	0.999	0.998
660	0.999	0.997
620	0.999	0.998
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.995
436	0.998	0.994
420	0.997	0.994
405	0.997	0.992
400	0.996	0.991
390	0.995	0.988
380	0.993	0.982
370	0.988	0.971
365	0.983	0.957
350	0.930	0.830
334	0.570	0.240
320	0.080	0.000
310	0.000	
300		
290		
280		
270		
260		
250		

Color Code

$\lambda_{80} / \lambda_{5}$ 35/32

Remarks

lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	0.2301
$P_{C,s}$	0.4882
$P_{d,C}$	0.2938
$P_{e,d}$	0.2370
$P_{g,F}$	0.5828
$P_{i,h}$	0.9142

Relative Partial Dispersion P'

$P'_{s,t}$	0.2270
$P'_{C,s}$	0.5270
$P'_{d,C'}$	0.2443
$P'_{e,d}$	0.2338
$P'_{g,F'}$	0.5159
$P'_{i,h}$	0.9018

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	0.0008
$\Delta P_{C,s}$	0.0005
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	0.0006

Chemical Properties

CR	1
FR	0
SR	1
AR	2.3
PR	1.3

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	8.2
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	9.2
T_g [°C]	434
T_{10}^{13} [°C]	430
$T_{10}^{7.6}$ [°C]	594
c_p [J/(g·K)]	0.557
λ [W/(m·K)]	0.780
ρ [g/cm ³]	3.60
E [10^3 N/mm ²]	57
μ	0.220
K [10^{-6} mm ² /N]	2.81
$HK_{0.1/20}$	420
HG	2

F2HTi 620364.360

$n_d = 1.62004$

$v_d = 36.37$

$n_F - n_C = 0.017050$

$n_e = 1.62408$

$v_e = 36.11$

$n_F - n_C = 0.017284$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58465
$n_{1970.1}$	1970.1	1.58958
$n_{1529.6}$	1529.6	1.59513
$n_{1060.0}$	1060.0	1.60190
n_t	1014.0	1.60279
n_s	852.1	1.60671
n_r	706.5	1.61227
n_C	656.3	1.61503
$n_{C'}$	643.8	1.61582
$n_{632.8}$	632.8	1.61656
n_D	589.3	1.61989
n_d	587.6	1.62004
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64202
n_h	404.7	1.65064
n_i	365.0	1.66623
$n_{334.1}$	334.1	1.68455
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.345333590
B_2	0.209073176
B_3	0.937357162
C_1	0.009977439
C_2	0.0470450767
C_3	111.88676400

Constants of Formula for dn/dT

D_0	1.51E-06
D_1	1.56E-08
D_2	-2.78E-11
E_0	9.34E-07
E_1	1.04E-09
λ_{TK} [μm]	0.250

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	2.4	3.9	5.5	0.3	1.6	3.2
+20/+40	2.7	4.4	6.3	1.3	3.0	4.8
+60/+80	3.0	4.8	6.8	1.9	3.7	5.7

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.870	0.710
2325	0.910	0.800
1970	0.968	0.920
1530	0.998	0.994
1060	0.999	0.998
700	0.999	0.998
660	0.999	0.997
620	0.999	0.998
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.994
436	0.997	0.993
420	0.996	0.991
405	0.995	0.987
400	0.994	0.986
390	0.994	0.986
380	0.994	0.985
370	0.989	0.973
365	0.985	0.962
350	0.930	0.830
334	0.600	0.270
320	0.080	0.000
310	0.000	0.000
300		
290		
280		
270		
260		
250		

Color Code

λ_{80} / λ_5 0,000000

Remarks

i-line glass
lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	0.2301
$P_{C,s}$	0.4882
$P_{d,C}$	0.2938
$P_{e,d}$	0.2370
$P_{g,F}$	0.5828
$P_{i,h}$	0.9142

Relative Partial Dispersion P'

$P'_{s,t}$	0.2270
$P'_{C,s}$	0.5270
$P'_{d,C'}$	0.2443
$P'_{e,d}$	0.2338
$P'_{g,F'}$	0.5159
$P'_{i,h}$	0.9018

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	0.0008
$\Delta P_{C,s}$	0.0005
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	0.0006

Chemical Properties

CR	1
FR	0
SR	1
AR	2.3
PR	1.3

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	8.2
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	9.2
T_g [°C]	434
T_{10}^{13} [°C]	430
$T_{10}^{7.6}$ [°C]	594
c_p [J/(g·K)]	0.557
λ [W/(m·K)]	0.780
ρ [g/cm ³]	3.60
E [10^3 N/mm ²]	57
μ	0.220
K [10^{-6} mm ² /N]	2.81
$HK_{0.1/20}$	420
HG	2

F5 603380.347

$n_d = 1.60342$
 $n_e = 1.60718$

$v_d = 38.03$
 $v_e = 37.77$

$n_F - n_C = 0.015867$
 $n_F - n_C = 0.016078$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.56934
$n_{1970.1}$	1970.1	1.57427
$n_{1529.6}$	1529.6	1.57979
$n_{1060.0}$	1060.0	1.58636
n_t	1014.0	1.58721
n_s	852.1	1.59093
n_r	706.5	1.59616
n_C	656.3	1.59875
$n_{C'}$	643.8	1.59948
$n_{632.8}$	632.8	1.60017
n_D	589.3	1.60328
n_d	587.6	1.60342
n_e	546.1	1.60718
n_F	486.1	1.61461
$n_{F'}$	480.0	1.61556
n_g	435.8	1.62381
n_h	404.7	1.63176
n_i	365.0	1.64606
$n_{334.1}$	334.1	1.66276
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.310446300
B_2	0.196034260
B_3	0.966129770
C_1	0.009586330
C_2	0.0457627627
C_3	115.01188300

Constants of Formula for dn/dT

D_0	2.13E-06
D_1	1.65E-08
D_2	-6.98E-11
E_0	1.02E-06
E_1	6.56E-10
λ_{TK} [μm]	0.208

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	2.5	4.0	5.5	0.4	1.8	3.3
+20/+40	3.0	4.6	6.2	1.6	3.2	4.8
+60/+80	3.1	4.8	6.5	2.0	3.7	5.4

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.790	0.550
2325	0.840	0.650
1970	0.940	0.860
1530	0.995	0.987
1060	0.999	0.998
700	0.999	0.997
660	0.998	0.996
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.998	0.994
460	0.996	0.991
436	0.996	0.990
420	0.995	0.988
405	0.994	0.985
400	0.993	0.982
390	0.989	0.973
380	0.984	0.960
370	0.971	0.930
365	0.963	0.910
350	0.900	0.760
334	0.620	0.300
320	0.080	0.000
310	0.000	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80} / λ_5 35/32

Remarks

lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	0.2346
$P_{C,s}$	0.4925
$P_{d,C}$	0.2946
$P_{e,d}$	0.2371
$P_{g,F}$	0.5795
$P_{i,h}$	0.9015

Relative Partial Dispersion P'

$P'_{s,t}$	0.2315
$P'_{C,s}$	0.5317
$P'_{d,C'}$	0.2451
$P'_{e,d}$	0.2340
$P'_{g,F'}$	0.5131
$P'_{i,h}$	0.8897

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	0.0017
$\Delta P_{C,s}$	0.0009
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0028

Chemical Properties

CR	1
FR	0
SR	1
AR	2.3
PR	2

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	8.0
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	8.9
T_g [°C]	438
T_{10}^{13} [°C]	425
$T_{10}^{7.6}$ [°C]	608
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.880
ρ [g/cm ³]	3.47
E [10^3 N/mm ²]	58
μ	0.220
K [10^{-6} mm ² /N]	2.92
$HK_{0.1/20}$	450
HG	3

N-F2 620364.265

$n_d = 1.62005$

$v_d = 36.43$

$n_F - n_C = 0.017020$

$n_e = 1.62408$

$v_e = 36.16$

$n_{F'} - n_{C'} = 0.017258$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58136
$n_{1970.1}$	1970.1	1.58744
$n_{1529.6}$	1529.6	1.59410
$n_{1060.0}$	1060.0	1.60167
n_t	1014.0	1.60261
n_s	852.1	1.60667
n_r	706.5	1.61229
n_C	656.3	1.61506
$n_{C'}$	643.8	1.61584
$n_{632.8}$	632.8	1.61658
n_D	589.3	1.61990
n_d	587.6	1.62005
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64209
n_h	404.7	1.65087
n_i	365.0	
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.397570370
B_2	0.159201403
B_3	1.268654300
C_1	0.009959061
C_2	0.0546931752
C_3	119.24834600

Constants of Formula for dn/dT

D_0	4.62E-07
D_1	1.17E-08
D_2	-2.35E-11
E_0	7.47E-07
E_1	9.81E-10
λ_{TK} [μm]	0.263

Temperature Coefficients of the Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [$10^{-6}/K$]			$\Delta n_{abs}/\Delta T$ [$10^{-6}/K$]		
	1060.0	e	g	1060.0	e	g
-40/-20	2.0	3.2	4.6	-0.1	1.0	2.3
+20/+40	2.1	3.5	5.1	0.7	2.0	3.6
+60/+80	2.2	3.7	5.5	1.1	2.6	4.4

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.75	0.48
2325	0.84	0.64
1970	0.950	0.88
1530	0.991	0.977
1060	0.998	0.996
700	0.997	0.992
660	0.996	0.990
620	0.996	0.991
580	0.997	0.993
546	0.997	0.992
500	0.994	0.984
460	0.989	0.973
436	0.985	0.963
420	0.980	0.950
405	0.959	0.90
400	0.95	0.87
390	0.89	0.75
380	0.76	0.51
370	0.48	0.16
365	0.28	0.04
350	0.10	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80} / λ_5 39/36

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2389
$P_{C,s}$	0.4925
$P_{d,C}$	0.2935
$P_{e,d}$	0.2366
$P_{g,F}$	0.5881
$P_{i,h}$	

Relative Partial Dispersion P'

$P'_{s,t}$	0.2356
$P'_{C,s}$	0.5312
$P'_{d,C'}$	0.2440
$P'_{e,d}$	0.2334
$P'_{g,F'}$	0.5208
$P'_{i,h}$	

Deviation of Rel. Partial Disp.

ΔP from the normal line	
$\Delta P_{C,t}$	0.0137
$\Delta P_{C,s}$	0.0047
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0056
$\Delta P_{i,g}$	

Chemical Properties

CR	1
FR	0
SR	1
AR	1
PR	1

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	7.8
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	9.1
T_g [°C]	569
T_{10}^{13} [°C]	567
$T_{10}^{7.6}$ [°C]	686
c_p [J/(g·K)]	0.810
λ [W/(m·K)]	1.050
ρ [g/cm ³]	2.65
E [10^3 N/mm ²]	82
μ	0.228
K [10^{-6} mm ² /N]	3.03
$HK_{0.1/20}$	600
HG	2

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +(727)345-47-04

Беларусь +(375)257-127-884

Узбекистан +998(71)205-18-59

Киргизия +996(312)96-26-47

эл.почта: sqh@nt-rt.ru || сайт: <https://schott.nt-rt.ru/>