

# Data Sheet

SCHOTT

**N-LAK21**  
**640601.374**

$n_d = 1.64049$	$v_d = 60.10$	$n_F - n_C = 0.010657$
$n_e = 1.64304$	$v_e = 59.86$	$n_{F'} - n_{C'} = 0.010743$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.60776
$n_{1970.1}$	1970.1	1.61416
$n_{1529.6}$	1529.6	1.62086
$n_{1060.0}$	1060.0	1.62759
$n_t$	1014.0	1.62834
$n_s$	852.1	1.63143
$n_r$	706.5	1.63538
$n_c$	656.3	1.63724
$n_{c'}$	643.8	1.63776
$n_{632.8}$	632.8	1.63825
$n_d$	589.3	1.64040
$n_e$	587.6	1.64049
$n_{e'}$	546.1	1.64304
$n_f$	486.1	1.64790
$n_{f'}$	480.0	1.64850
$n_g$	435.8	1.65366
$n_h$	404.7	1.65844
$n_i$	365.0	1.66657
$n_{334.1}$	334.1	1.67532
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.536	0.210
2325	0.752	0.490
1970	0.946	0.870
1530	0.988	0.970
1060	0.998	0.994
700	0.998	0.994
660	0.996	0.991
620	0.996	0.990
580	0.997	0.992
546	0.997	0.992
500	0.995	0.988
460	0.990	0.976
436	0.987	0.969
420	0.985	0.963
405	0.982	0.955
400	0.979	0.950
390	0.971	0.930
380	0.959	0.900
370	0.928	0.830
365	0.905	0.780
350	0.799	0.570
334	0.565	0.240
320	0.250	0.040
310	0.060	
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2900
$P_{C,s}$	0.5453
$P_{d,C}$	0.3052
$P_{e,d}$	0.2385
$P_{g,F}$	0.5411
$P_{i,h}$	0.7630
$P'_{s,t}$	0.2877
$P'_{C,s}$	0.5892
$P'_{d,C}$	0.2545
$P'_{e,d}$	0.2366
$P'_{g,F}$	0.4804
$P'_{i,h}$	0.7569

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0052
$\Delta P_{C,s}$	0.0023
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0017
$\Delta P_{i,g}$	-0.0090

Other Properties	
$\alpha_{-30/+70^\circ\text{C}} [10^{-6}/\text{K}]$	6.8
$\alpha_{+20/+300^\circ\text{C}} [10^{-6}/\text{K}]$	8.1
$T_g [\text{ }^\circ\text{C}]$	639
$T_{10}^{13.0} [\text{ }^\circ\text{C}]$	627
$T_{10}^{7.6} [\text{ }^\circ\text{C}]$	716
$c_p [\text{J/(g}\cdot\text{K})]$	0.590
$\lambda [\text{W}/(\text{m}\cdot\text{K})]$	0.880
$\rho [\text{g}/\text{cm}^3]$	3.74
$E [10^3 \text{ N/mm}^2]$	91
$\mu$	0.272
$K [10^{-6} \text{ mm}^2/\text{N}]$	1.74
$HK_{0.1/20}$	600
$HG$	5
$B$	0
$CR$	4
$FR$	2
$SR$	53.2
$AR$	4.3
$PR$	4.3

Constants of Dispersion Formula		
$B_1$	1.22718116	
$B_2$	0.420783743	
$B_3$	1.01284843	
$C_1$	0.00602075682	
$C_2$	0.0196862889	
$C_3$	88.4370099	

Color Code	
$\lambda_{80}/\lambda_5$	37/31
( $= \lambda_{70}/\lambda_5$ )	

Remarks	

Temperature Coefficients of Refractive Index						
	$\Delta n_{\text{rel}}/\Delta T [10^{-6}/\text{K}]$		$\Delta n_{\text{abs}}/\Delta T [10^{-6}/\text{K}]$			
[°C]	1060.0	e	g	1060.0	e	g
-40/-20	0.6	1.1	1.6	-1.6	-1.2	-0.7
+20/+40	0.5	1.0	1.6	-0.9	-0.4	0.1
+60/+80	0.7	1.3	1.9	-0.4	0.1	0.7