

N-PK51 529770.386

$n_d = 1.52855$

$v_d = 76.98$

$n_F - n_C = 0.006867$

$n_e = 1.53019$

$v_e = 76.58$

$n_F - n_C = 0.006923$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.50987
$n_{1970.1}$	1970.1	1.51312
$n_{1529.6}$	1529.6	1.51665
$n_{1060.0}$	1060.0	1.52045
n_t	1014.0	1.52089
n_s	852.1	1.52278
n_r	706.5	1.52527
n_C	656.3	1.52646
$n_{C'}$	643.8	1.52680
$n_{632.8}$	632.8	1.52711
n_D	589.3	1.52849
n_d	587.6	1.52855
n_e	546.1	1.53019
n_F	486.1	1.53333
$n_{F'}$	480.0	1.53372
n_g	435.8	1.53704
n_h	404.7	1.54010
n_i	365.0	1.54527
$n_{334.1}$	334.1	1.55079
$n_{312.6}$	312.6	1.55579
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.156107750
B_2	0.153229344
B_3	0.785618966
C_1	0.005855974
C_2	0.0194072416
C_3	140.53704600

Constants of Formula for dn/dT

D_0	-1.98E-05
D_1	-6.06E-09
D_2	1.60E-11
E_0	4.16E-07
E_1	5.01E-10
λ_{TK} [μm]	0.134

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	-6.0	-5.7	-5.4	-8.1	-7.8	-7.5
+20/+40	-7.1	-6.7	-6.4	-8.4	-8.1	-7.7
+60/+80	-7.5	-7.1	-6.7	-8.6	-8.2	-7.8

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.920	0.810
2325	0.940	0.860
1970	0.986	0.966
1530	0.994	0.985
1060	0.998	0.994
700	0.997	0.992
660	0.996	0.991
620	0.997	0.992
580	0.998	0.995
546	0.998	0.996
500	0.997	0.993
460	0.995	0.988
436	0.994	0.984
420	0.994	0.984
405	0.994	0.986
400	0.994	0.986
390	0.994	0.984
380	0.989	0.973
370	0.982	0.955
365	0.976	0.940
350	0.930	0.840
334	0.820	0.600
320	0.600	0.280
310	0.400	0.100
300	0.210	0.020
290	0.060	0.000
280	0.010	
270	0.000	
260		
250		

Color Code

$\lambda_{80} / \lambda_{5}$ 34/29

Remarks

suitable for precision molding

step 0.5 available

Relative Partial Dispersion P

$P_{s,t}$	0.2750
$P_{C,s}$	0.5360
$P_{d,C}$	0.3046
$P_{e,d}$	0.2387
$P_{g,F}$	0.5401
$P_{i,h}$	0.7535

Relative Partial Dispersion P'

$P'_{s,t}$	0.2727
$P'_{C,s}$	0.5797
$P'_{d,C'}$	0.2540
$P'_{e,d}$	0.2367
$P'_{g,F'}$	0.4794
$P'_{i,h}$	0.7473

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	-0.0991
$\Delta P_{C,s}$	-0.0463
$\Delta P_{F,e}$	0.0088
$\Delta P_{g,F}$	0.0258
$\Delta P_{i,g}$	0.1203

Chemical Properties

CR	1
FR	0
SR	52.3
AR	3.3
PR	4.3
SR-J	3
WR-J	1

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	12.4
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	14.1
T_g [°C]	487
T_{10}^{13} [°C]	488
$T_{10}^{7.6}$ [°C]	568
c_p [J/(g·K)]	0.620
λ [W/(m·K)]	0.650
AT [°C]	528
ρ [g/cm ³]	3.86
E [10 ³ N/mm ²]	74
μ	0.295
K [10 ⁻⁶ mm ² /N]	0.54
HK _{0.1/20}	415
HG	6
Abrasion Aa	592