

## D-ZK3 589613

nd =1.58913	vd =61.25	nF - nC =0.009619
ne =1.59142	ve =61.03	nF' - nc' =0.009690

### Refractive Indices

	$\lambda$ ( nm )	
$n_r$	706.5	1.58449
$n_c$	656.3	1.58618
$n_{c'}$	643.8	1.58665
$n_{He-Ne}$	632.8	1.58709
$n_D$	589.3	1.58904
$n_d$	587.6	1.58913
$n_e$	546.1	1.59142
$n_F$	486.1	1.59580
$n_{F'}$	480.0	1.59634
$n_g$	435.8	1.60097
$n_h$	404.7	1.60524
$n_i$	365.0	1.61247

### Constants of Dispersion (Cauchy)

$A_0$	2.4895103
$A_1$	$-1.2244956 \times 10^{-2}$
$A_2$	$1.2942624 \times 10^{-2}$
$A_3$	$3.4904493 \times 10^{-4}$
$A_4$	$-1.7772279 \times 10^{-5}$
$A_5$	$9.1137189 \times 10^{-7}$

### Relative Partial Dispersions

$P_{d,c}$	0.3067	$P'_{d,c'}$	0.2559
$P_{e,d}$	0.238	$P'_{e,d}$	0.2363
$P_{g,F}$	0.5374	$P'_{g,F'}$	0.4778

### Deviation of Relative Partial Dispersions

$\Delta P_{F,e}$	-0.00011
$\Delta P_{g,F}$	-0.0044

### Chemical Properties

	Group
RC(S)	1
RA(S)	3
DW	2
DA	3

### Thermal Properties

$T_g$ ( °C )	505
$T_s$ ( °C )	555
$T_{10}^{14.5}$ ( °C )	
$T_{10}^{13}$ ( °C )	
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	72
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	80

### Mechanical Properties

Hardness ( $10^7 Pa$ )	615
FA (Relative Abrasion)	
Young's Modulus ( $10^7 Pa$ )	9238
Rigidity Modulus ( $10^7 Pa$ )	3771
Poisson's Ratio	

### Photoelastic Constant

$\beta$ ( $10^{-12}/Pa$ )	
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### Color

$\lambda_{80}/\lambda_5$	35/30
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### Specific Gravity

$\rho$ ( $g/cm^3$ )	2.82
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### Internal Transmittance

$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400		
2200		
2000		
1800		
1600		
1400	0.991	0.981
1200	0.996	0.992
1060	0.995	0.99
1000	0.996	0.991
950	0.996	0.991
900	0.996	0.992
850	0.996	0.992
800	0.996	0.993
700	0.998	0.996
650	0.998	0.995
600	0.998	0.996
550	0.999	0.998
500	0.999	0.997
480	0.999	0.997
460	0.998	0.995
440	0.997	0.994
420	0.997	0.994
400	0.996	0.991
390	0.994	0.987
380	0.99	0.98
370	0.982	0.964
360	0.966	0.934
350	0.931	0.867
340	0.88	0.77
330	0.78	0.61
320	0.64	0.41
310	0.46	0.21
300	0.27	0.08
290	0.13	0.02
280	0.05	

NHG	HOYA	OHARA	SCHOTT
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D-ZK3	M-BACD5N	L-BAL35	
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