

<b>BaF12</b>	<b>589530</b>	$n_d = 1.58904$	$\nu_d = 52.97$	$n_F - n_c = 0.011120$
		$n_e = 1.59169$	$\nu_e = 52.64$	$n_{F'} - n_{c'} = 0.011240$

Refractive Indices		
	$\lambda(\text{nm})$	
$n_t$	706.5	1.58381
$n_c$	656.3	1.58569
$n_{c'}$	643.8	1.58623
$n_{\text{He-Ne}}$	632.8	1.58672
$n_D$	589.3	1.58894
$n_d$	587.6	1.58904
$n_e$	546.1	1.59169
$n_F$	486.1	1.59681
$n_{F'}$	480.0	1.59746
$n_g$	435.8	1.60296
$n_h$	404.7	1.60812
$n_i$	365.0	1.61706

Chemical Properties (grade)	
RC(S)	1
RA(S)	3
$D_W$	1
$D_A$	2

Internal Transmittance		
$\lambda(\text{nm})$	$\tau_{5\text{mm}}$	$\tau_{10\text{mm}}$
2400		
2200		
2000		
1800		
1600		
1400		
1200		
1060		
1000		
950		
900		
850	0.999	0.998
800	0.999	0.998
700	0.999	0.998
650	0.999	0.998
600	0.999	0.998
550	0.999	0.998
500	0.999	0.998
480	0.997	0.994
460	0.997	0.994
440	0.996	0.992
420	0.994	0.988
400	0.992	0.984
390	0.989	0.978
380	0.986	0.972
370	0.982	0.964
360	0.969	0.939
350	0.952	0.906
340	0.910	0.828
330	0.803	0.645
320	0.548	0.300
310	0.159	
300		
290		
280		

Thermal Properties	
$T_g(^{\circ}\text{C})$	571
$T_s(^{\circ}\text{C})$	644
$T_{10}^{14.5}(^{\circ}\text{C})$	520
$T_{10}^{13}(^{\circ}\text{C})$	565
$\alpha_{20/120^{\circ}\text{C}} (10^{-7}/\text{K})$	67
$\alpha_{100/300^{\circ}\text{C}} (10^{-7}/\text{K})$	80
$\lambda(\text{W}/\text{m}\cdot\text{K})$	

Constants of Dispersion Formula	
$A_0$	2.48117450E+00
$A_1$	-9.0607364E-03
$A_2$	1.49581370E-02
$A_3$	5.11302350E-04
$A_4$	-3.20520240E-05
$A_5$	2.32967030E-06

Mechanical Properties	
$H_K(10^7\text{Pa})$	497
$F_A$	
$E(10^7\text{Pa})$	7459
$G(10^7\text{Pa})$	2967
$\mu$	0.257
$B(10^{-12}/\text{Pa})$	

Relative Partial Dispersion			
$P_{d,c}$	0.3013	$P'_{d,c'}$	0.2502
$P_{e,d}$	0.2383	$P'_{e,d'}$	0.2360
$P_{g,F}$	0.5531	$P'_{g,F'}$	0.4898

Anomalous dispersions	
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0026

Range of Temperature ( $^{\circ}\text{C}$ )	Temperature Coefficients of Refractive Index						
	$dn/dt$ relative ( $10^{-6} / ^{\circ}\text{C}$ )						
	t	C'	He-Ne	D	e	F'	g
-40~-20							
-20~0							
0~20							
20~40							
40~60							
60~80							

Density	
$\rho(\text{g}/\text{cm}^3)$	3.18

Coloration Code		
$\lambda_{80}/\lambda_5$	33/30	$\lambda_{70}/\lambda_5$

Remarks