

**IRG204S** $n_{10.6} = 2.7659$ $v_{10.6} = 132.77$ $n_8 - n_{12.5} = 0.0133$ **折射率 Refractive Index**

λ (μm)	$n\lambda$
2.0	2.8095
3.0	2.7914
4.0	2.7846
5.0	2.7808
6.0	2.7779
7.0	2.7754
8.0	2.7730
9.0	2.7704
10.0	2.7677
11.0	2.7647
12.0	2.7614
12.5	2.7597
13.0	2.7578
14.0	2.7538

色散公式常数 Constants of Dispersion Formula

A	2.7790480E+00
B	1.1911499E-01
C	1.5043404E-02
D	-1.2268558E-04
E	-1.0906502E-08
F	-1.8517306E-10

折射率温度系数常数 Constants of dn/dt

D0	1.39794E-05
D1	6.65805E-08
D2	-1.61120E-10
E0	3.04933E-05
E1	8.15250E-08
$\lambda_{TK}(\mu\text{m})$	-7.27149E-01

热性质 Thermal Properties

$T_g(^{\circ}\text{C})$	174
$T_s(^{\circ}\text{C})$	199
$\alpha_{-60/120^{\circ}\text{C}}(10^{-7}/\text{K})$	209
$\alpha_{20/120^{\circ}\text{C}}(10^{-7}/\text{K})$	212
C_p (J/g·K)	

化学性质 Chemical Properties(grade)

RC(S)	1
RA(S)	1
DW	2
DA	1
ROH (S)	2
RP (S)	1

机械性质 Mechanical Properties

Hk(107Pa)	115
E(GPa)	19.8
G(GPa)	7.3
μ	0.366

折射率温度系数Temperature Coefficients
of Refractive Index
(-40 ~ 80 $^{\circ}\text{C}$) ($\times 10^{-6}/^{\circ}\text{C}$)

λ (μm)	dn_{rel}/dt
3	21
5	19
8	18
10	18
12	17

膨胀系数

Expansion Coefficient

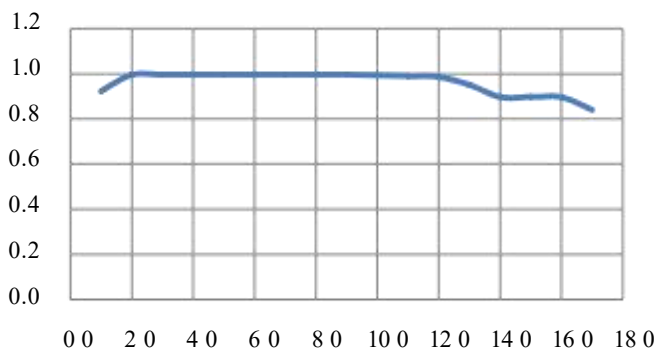
$^{\circ}\text{C}$	α
-50/-40	202
-40/-30	205
-30/-20	206
-20/-10	207
-10/0	208
0/10	208
10/20	209
20/30	209
30/40	210
40/50	210
50/60	211
60/70	211
70/80	212
80/90	212
90/100	213
100/110	213
110/120	214
120/130	215
130/140	216
140/150	217
150/160	217

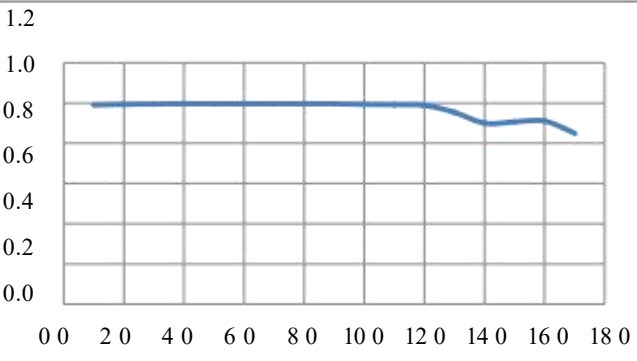
光谱透射率 Internal Transmittance

$\lambda(\mu\text{m})$	τ 2mm
17.0	0.840
16.0	0.896
15.0	0.897
14.0	0.897
13.0	0.951
12.5	0.977
12.0	0.987
11.0	0.990
10.0	0.993
9.5	0.995
9.0	0.996
8.5	0.997
8.0	0.997
7.5	0.996
7.0	0.996
6.5	0.997
6.0	0.996
5.5	0.996
5.0	0.996
4.5	0.996
4.0	0.997
3.5	0.997
3.0	0.996
2.5	0.997
2.0	0.995
1.5	0.995
1.0	0.923

其他性质 Other Properties

$\rho(\text{g}/\text{cm}^3)$	4.72
ϵ_r	

备注 Remarks**透射率 Transmittance (τ 2 mm)**

IRG206S		n10.6= 2.7763		v10.6=137.71		n8-n12.5=0.0129	
折射率 Refractive Index		热性质 Thermal Properties		光谱透射率 Internal Transmittance			
λ (μm)	nλ	T _g (°C)	181	λ(μm)	τ 2mm		
2.0	2.8197	T _s (°C)	204	17.0	0.849		
3.0	2.8015	α-60/120°C(10-7/K)	206	16.0	0.911		
4.0	2.7947	α20/120°C(10-7/K)	204	15.0	0.906		
5.0	2.7909	C _p (J/g·K)	0.26	14.0	0.900		
6.0	2.7880			13.0	0.954		
7.0	2.7856	化学性质 Chemical Properties(grade)		12.5	0.979		
8.0	2.7832	RC(S)	1	12.0	0.989		
9.0	2.7807	RA(S)	1	11.0	0.992		
10.0	2.7781	DW	1	10.0	0.994		
11.0	2.7752	DA	1	9.5	0.996		
12.0	2.7720	ROH (S)	2	9.0	0.997		
12.5	2.7703	RP (S)	1	8.5	0.997		
13.0	2.7685	机械性质 Mechanical Properties		8.0	0.997		
14.0	2.7646	Hk(107Pa)	118	7.5	0.996		
		E(GPa)	18.4	7.0	0.997		
色散公式常数 Constants of Dispersion		G(GPa)	7.1	6.5	0.997		
A	2.78901400E+000	μ	0.300	6.0	0.996		
B	1.20228313E-001	折射率温度系数		5.5	0.996		
C	1.40968068E-002	Temperature Coefficients of Refractive Index		5.0	0.996		
D	-1.19593671E-004	(-40 ~ 80°C) (×10-6/°C)		4.5	0.996		
E	3.87859433E-009	λ (μm)		4.0	0.996		
F	-2.31837854E-010	dn _{rel} /dt		3.5	0.996		
折射率温度系数常数 Constants of dn/dt		3	37	3.0	0.995		
D0	2.65967E-05	5	34	2.5	0.996		
D1	-3.30028E-08	8	32	2.0	0.994		
D2	-2.13498E-10	10	32	1.5	0.992		
E0	3.35590E-05	12	32	1.0	0.990		
E1	4.18229E-08						
λ _{TK} (μm)	4.48973E-02						
透射率 Transmittance (τ 2mm)		膨胀系数		其他性质 Other Properties			
		°C		ρ(g/cm³)	4.63		
		α		ε _r			
		-50/-40	203				
		-40/-30	205				
		-30/-20	205				
		-20/-10	206				
		-10/0	207				
		0/10	207				
		10/20	207				
		20/30	207				
		30/40	207				
		40/50	207				
		50/60	208				
		60/70	208				
		70/80	208				
		80/90	208				
		90/100	208				
		100/110	208				
		110/120	209				
		120/130	209				
		130/140	209				
		140/150	210				
		150/160	210				
		备注 Remarks					