DATA SHEET DISPERSING PRISM

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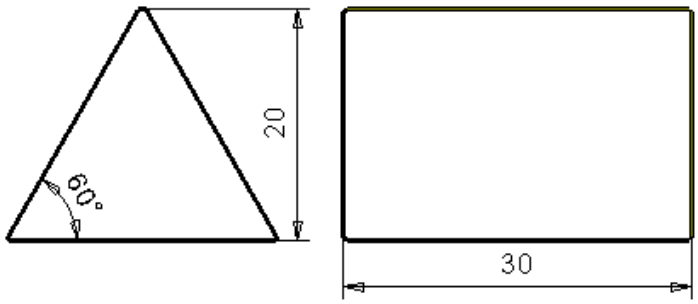
Description: Prism disperses collimated light into its component spectrum.
Application: Used for spectrum analysis.

Bevel	0,3mm
Dimensional Tolerances	±0,1mm
Angle Tolerances	±5arcmin
Surface Quality (Scratch/Dig)	60-40
Surface Accuracy	1/2 Lambda
ROHS	Compliant



H-ZF4 (CDGM) 728283	n_d=1.72825	υ_d=28.32	$n_{f'} - n_C$ =0.025716
	n_e=1.73432	υ_e=28.10	$n_{f'} - n_{e'}$ =0.026133

Refractive Indices		
	λ (nm)	
n_t	1014.0	1.70325
n_r	706.5	1.71680
n_C	656.3	1.72082
$n_{C'}$	643.8	1.72198
n_{He-Ne}	632.8	1.72307
n_D	589.3	1.72803
n_d	587.6	1.72825
n_e	546.1	1.73432
n_F	486.1	1.74656
$n_{F'}$	480.0	1.74811
n_g	435.8	1.76207
n_h	404.7	1.77601
n_i	365.0	

Constants of Dispersion Formula	
A_0	2.8973661
A_1	-2.0238982×10^{-2}
A_2	1.9289743×10^{-2}
A_3	6.8732539×10^{-3}
A_4	-8.8531406×10^{-4}
A_5	6.3079443×10^{-5}

Deviation of Relative Partial Dispersions ΔP from the "Normal Line"	
$\Delta P_{F,e}$	0.0008
$\Delta P_{g,F}$	0.0065

Relative Partial Dispersions			
$P_{d,C}$	0.2890	$P'_{d,C'}$	0.2401
$P_{e,d}$	0.2361	$P'_{e,d}$	0.2323
$P_{g,F}$	0.6040	$P'_{g,F'}$	0.5343

Chemical Properties	
	Grade
RC(S)	2
RA(S)	1
D_W	1
D_A	1

Thermal Properties	
T_g (℃)	596
T_s (℃)	638
$T_{10^{14.5}}$ (℃)	544
$T_{10^{13}}$ (℃)	578
$T_{10^{7.6}}$ (℃)	
$\alpha_{20-120℃}$ (10^{-7}/K)	93
$\alpha_{100-300℃}$ (10^{-7}/K)	105
λ (W/m · K)	

Mechanical Properties	
H_K (10^7Pa)	581
F_A	
E (10^7Pa)	8563
G (10^7Pa)	3414
μ	0.254
B (10^{-12}/Pa)	

Other Properties	
ρ (g/cm³)	3.07

Internal Transmittance		
λ (nm)	τ 5 mm	τ 10 mm
2400	0.949	0.900
2200	0.965	0.932
2000	0.981	0.980
1800	0.990	0.996
1600	0.998	0.998
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.998
850	0.999	0.998
800	0.999	0.998
700	0.998	0.996
650	0.996	0.993
600	0.997	0.994
550	0.996	0.993
500	0.992	0.984
480	0.990	0.980
460	0.986	0.972
440	0.981	0.962
420	0.965	0.931
400	0.92	0.84
390	0.86	0.73
380	0.72	0.51
370	0.44	0.19
360	0.12	0.01
350		
340		
330		
320		
310		
300		
290		
280		

Coloration Code	
λ_{80}/λ_5	42/37

Temperature Coefficients of Refractive Index						
Rang of Temperature	dn/dt relative(10^{-6}/℃)					
	t	C′	d	e	F′	g
-40～-20	-0.4	0.2	0.6	1.0	2.2	2.7
-20～0	0.0	0.4	0.6	1.0	2.0	3.3
0～20	-0.1	0.6	0.7	1.1	2.8	3.5
20～40	0.1	0.7	0.8	1.5	3.1	3.9
40～60	0.1	0.7	0.8	1.6	3.2	5.2
60～80	-0.1	1.0	1.8	2.1	3.7	5.8

GERÄTETECHNIK Dipl.-Ing. Ulf Mikolajczak · Trakehnenstr. 6a · 26127 Oldenburg · Germany
Email: info@optikbaukasten.de · Phone: +49 (0)441-5941393 · VAT-Id.: DE 181481827