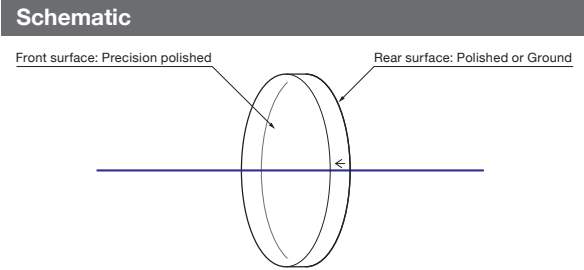
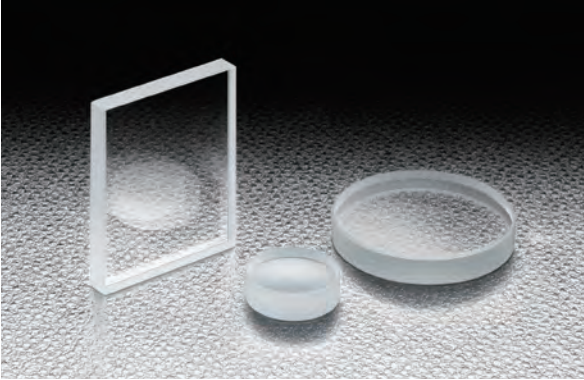


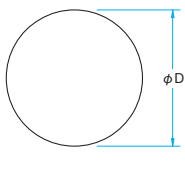
These Optical Flats are precision polished on one side to a high accuracy and surface quality. They are suitable substrates to be coated with an optical thin film, such as a custom-made mirror.

- We offer these substrates in a wide variety of shapes and sizes, thickness and surface accuracy to allow for selection according to your required specifications.



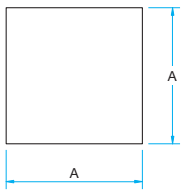
Outline Drawing (in mm)

● Circle



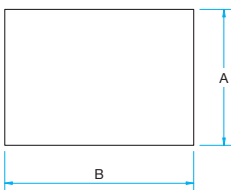
- Tolerance
- $\phi D \leq \phi 50.8$
Diameter $\phi D_{\pm 0.1}$
Thickness $t \pm 0.1$
- $\phi D \geq \phi 60$
Diameter $\phi D_{\pm 0.2}$
Thickness $t \pm 0.2$

● Square



- Tolerance
- $A \leq 50$
Length $A_{\pm 0.1}$
Thickness $t \pm 0.1$
- $A \geq 60$
Length $A_{\pm 0.2}$
Thickness $t \pm 0.2$

● Rectangle



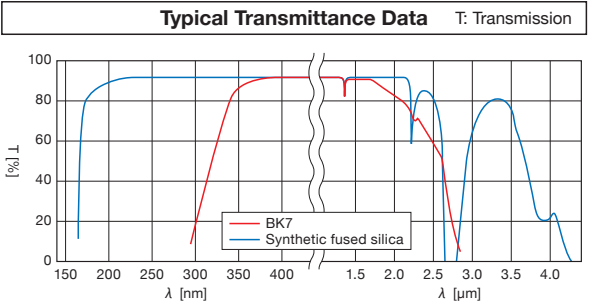
- Tolerance
- $A \times B \leq 40 \times 50$
Length $A_{\pm 0.1}$ $B_{\pm 0.1}$
Thickness $t \pm 0.1$
- $A \times B \geq 50 \times 60$
Length $A_{\pm 0.2}$ $B_{\pm 0.2}$
Thickness $t \pm 0.2$

Specifications

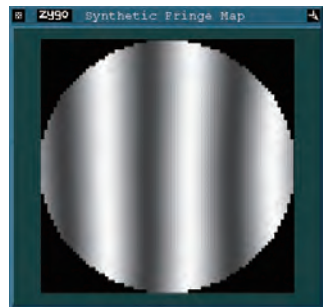
Material	BK7, Synthetic fused silica, Pyrex® or Equivalent (PX)
Parallelism	<3'
Clear aperture	90% of actual aperture, or a circle or ellipse inscribed in the rectangle of 90% Dimensions

- Guide**
- ▶ Substrates precision polished on both sides are also available as optical parallels (OPB, OPSQ, OPSQK).
 - ▶ Pyrex® is a registered trademark of Corning.

- Attention**
- ▶ Planar substrate is not coated on both sides and there is a 3.5 to 4% reflection of the surface.
 - ▶ When used in transmission (back surface is polished) the planar substrate, there is a possibility that the transmitted beam is slightly deviated. The appropriate substrate for use in transmission is the parallel planar substrate (OPB, OPSQ, OPSQK).
 - ▶ No surface accuracy guarantee data is provided with the product. If you need the sheet containing the surface accuracy guarantee data, an additional cost for creating the data is required. Please contact our Sales Division with your request.



Surface Accuracy Data (reference data)



- Surface accuracy measurement method: Measured with Zygo laser interferometer
- Surface accuracy measurement wavelength: 632.8nm
- Surface accuracy guaranteed temperature: 23°C±2°C

Compatible Optic Mounts

MLH-10, -15 / MHG-MP12.7-NL / BSHL-15-2 / MHF-20 / MHG-HS25-NL, -HS30-NL / MHAN-40S

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Circle						
Part Number	Diameter ϕ D [mm]	Thickness t [mm]	Material	Surface flatness	Surface Quality (Scratch-Dig)	Rear Surface
OFB-10C03-10	ϕ 10	3	BK7	$\lambda/10$	10-5	Ground
OFB-10C05-10	ϕ 10	5	BK7	$\lambda/10$	10-5	Ground
OFB-10C05-20	ϕ 10	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-10C06-20	ϕ 10	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-12.7C05-10	ϕ 12.7	5	BK7	$\lambda/10$	10-5	Ground
OFB-15C03-10	ϕ 15	3	BK7	$\lambda/10$	10-5	Ground
OFB-15C05-10	ϕ 15	5	BK7	$\lambda/10$	10-5	Ground
OFB-15C05-20	ϕ 15	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-15C06-20	ϕ 15	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-20C03-10	ϕ 20	3	BK7	$\lambda/10$	10-5	Ground
OFB-20C05-4	ϕ 20	5	BK7	$\lambda/4$	10-5	Ground
OFB-20C05-10	ϕ 20	5	BK7	$\lambda/10$	10-5	Ground
OFB-20C05-20	ϕ 20	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-20C06-20	ϕ 20	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFBP-25C05-1	ϕ 25	5	BK7	λ	10-5	Polished
OFBP-25C05-4	ϕ 25	5	BK7	$\lambda/4$	10-5	Polished
OFBP-25C05-10	ϕ 25	5	BK7	$\lambda/10$	10-5	Polished
OFBP-25C05-20	ϕ 25	5	BK7	$\lambda/20$	10-5	Polished
OFSQP-25C06-20	ϕ 25	6	Synthetic fused silica	$\lambda/20$	20-10	Polished
OFBP-25.4C05-10	ϕ 25.4	5	BK7	$\lambda/10$	10-5	Polished
OFBP-30C05-1	ϕ 30	5	BK7	λ	10-5	Polished
OFBP-30C05-4	ϕ 30	5	BK7	$\lambda/4$	10-5	Polished
OFBP-30C05-10	ϕ 30	5	BK7	$\lambda/10$	10-5	Polished
OFBP-30C05-20	ϕ 30	5	BK7	$\lambda/20$	10-5	Polished
OFSQP-30C06-20	ϕ 30	6	Synthetic fused silica	$\lambda/20$	20-10	Polished
OFBP-40C06-1	ϕ 40	6	BK7	λ	10-5	Polished
OFBP-40C06-4	ϕ 40	6	BK7	$\lambda/4$	10-5	Polished
OFBP-40C06-10	ϕ 40	6	BK7	$\lambda/10$	10-5	Polished
OFBP-40C06-20	ϕ 40	6	BK7	$\lambda/20$	10-5	Polished
OFSQP-40C08-20	ϕ 40	8	Synthetic fused silica	$\lambda/20$	20-10	Polished
OFBP-50C08-1	ϕ 50	8	BK7	λ	10-5	Polished
OFBP-50C08-4	ϕ 50	8	BK7	$\lambda/4$	10-5	Polished
OFBP-50C08-10	ϕ 50	8	BK7	$\lambda/10$	10-5	Polished
OFBP-50C08-20	ϕ 50	8	BK7	$\lambda/20$	10-5	Polished
OFSQP-50C10-20	ϕ 50	10	Synthetic fused silica	$\lambda/20$	20-10	Polished
OFBP-50.8C08-10	ϕ 50.8	8	BK7	$\lambda/10$	10-5	Polished
OFPXP-60C10-1	ϕ 60	10	PX	λ	10-5	Polished
OFPXP-60C10-4	ϕ 60	10	PX	$\lambda/4$	10-5	Polished
OFPXP-60C10-10	ϕ 60	10	PX	$\lambda/10$	10-5	Polished
OFPXP-60C10-20	ϕ 60	10	PX	$\lambda/20$	10-5	Polished
OFPXP-80C12-1	ϕ 80	12	PX	λ	10-5	Polished
OFPXP-80C12-4	ϕ 80	12	PX	$\lambda/4$	10-5	Polished
OFPXP-80C12-10	ϕ 80	12	PX	$\lambda/10$	10-5	Polished
OFPXP-80C12-20	ϕ 80	12	PX	$\lambda/20$	10-5	Polished
OFPXP-100C15-1	ϕ 100	15	PX	λ	10-5	Polished
OFPXP-100C15-4	ϕ 100	15	PX	$\lambda/4$	10-5	Polished
OFPXP-100C15-10	ϕ 100	15	PX	$\lambda/10$	10-5	Polished
OFPXP-130C18-1	ϕ 130	18	PX	λ	10-5	Polished
OFPXP-130C18-4	ϕ 130	18	PX	$\lambda/4$	10-5	Polished
OFPXP-130C18-10	ϕ 130	18	PX	$\lambda/10$	10-5	Polished
OFPXP-150C20-1	ϕ 150	20	PX	λ	10-5	Polished
OFPXP-150C20-4	ϕ 150	20	PX	$\lambda/4$	10-5	Polished
OFPXP-150C20-10	ϕ 150	20	PX	$\lambda/10$	10-5	Polished

Square						
Part Number	Length A [mm]	Thickness t [mm]	Material	Surface flatness	Surface Quality (Scratch-Dig)	Rear Surface
OFB-10S03-10	\square 10	3	BK7	$\lambda/10$	10-5	Ground
OFB-10S05-10	\square 10	5	BK7	$\lambda/10$	10-5	Ground
OFB-10S05-20	\square 10	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-10S06-20	\square 10	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-15S03-4	\square 15	3	BK7	$\lambda/4$	10-5	Ground
OFB-15S03-10	\square 15	3	BK7	$\lambda/10$	10-5	Ground
OFB-15S05-4	\square 15	5	BK7	$\lambda/4$	10-5	Ground
OFB-15S05-10	\square 15	5	BK7	$\lambda/10$	10-5	Ground
OFB-15S05-20	\square 15	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-15S06-20	\square 15	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-20S03-4	\square 20	3	BK7	$\lambda/4$	10-5	Ground
OFB-20S03-10	\square 20	3	BK7	$\lambda/10$	10-5	Ground
OFB-20S05-4	\square 20	5	BK7	$\lambda/4$	10-5	Ground
OFB-20S05-10	\square 20	5	BK7	$\lambda/10$	10-5	Ground
OFB-20S05-20	\square 20	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-20S06-20	\square 20	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-25S05-1	\square 25	5	BK7	λ	10-5	Ground
OFB-25S05-4	\square 25	5	BK7	$\lambda/4$	10-5	Ground
OFB-25S05-10	\square 25	5	BK7	$\lambda/10$	10-5	Ground
OFB-25S05-20	\square 25	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-25S06-20	\square 25	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-30S05-1	\square 30	5	BK7	λ	10-5	Ground
OFB-30S05-4	\square 30	5	BK7	$\lambda/4$	10-5	Ground
OFB-30S05-10	\square 30	5	BK7	$\lambda/10$	10-5	Ground
OFB-30S05-20	\square 30	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-30S06-20	\square 30	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFPXP-40S06-1	\square 40	6	PX	λ	10-5	Polished
OFPXP-40S06-4	\square 40	6	PX	$\lambda/4$	10-5	Polished
OFPXP-40S06-10	\square 40	6	PX	$\lambda/10$	10-5	Polished
OFPXP-40S06-20	\square 40	6	PX	$\lambda/20$	10-5	Polished
OFPXP-50S08-1	\square 50	8	PX	λ	10-5	Polished
OFPXP-50S08-4	\square 50	8	PX	$\lambda/4$	10-5	Polished
OFPXP-50S08-10	\square 50	8	PX	$\lambda/10$	10-5	Polished
OFPXP-50S08-20	\square 50	8	PX	$\lambda/20$	10-5	Polished
OFPXP-60S10-1	\square 60	10	PX	λ	10-5	Polished
OFPXP-60S10-4	\square 60	10	PX	$\lambda/4$	10-5	Polished
OFPXP-60S10-10	\square 60	10	PX	$\lambda/10$	10-5	Polished
OFPXP-60S10-20	\square 60	10	PX	$\lambda/20$	10-5	Polished
OFPXP-80S12-1	\square 80	12	PX	λ	10-5	Polished
OFPXP-80S12-4	\square 80	12	PX	$\lambda/4$	10-5	Polished
OFPXP-80S12-10	\square 80	12	PX	$\lambda/10$	10-5	Polished
OFPXP-80S12-20	\square 80	12	PX	$\lambda/20$	10-5	Polished
OFPXP-100S15-1	\square 100	15	PX	λ	10-5	Polished
OFPXP-100S15-4	\square 100	15	PX	$\lambda/4$	10-5	Polished
OFPXP-100S15-10	\square 100	15	PX	$\lambda/10$	10-5	Polished
OFPXP-130S18-1	\square 130	18	PX	λ	10-5	Polished
OFPXP-130S18-4	\square 130	18	PX	$\lambda/4$	10-5	Polished
OFPXP-130S18-10	\square 130	18	PX	$\lambda/10$	10-5	Polished
OFPXP-150S20-1	\square 150	20	PX	λ	10-5	Polished
OFPXP-150S20-4	\square 150	20	PX	$\lambda/4$	10-5	Polished
OFPXP-150S20-10	\square 150	20	PX	$\lambda/10$	10-5	Polished

Compatible Optic Mounts

MHG-MP50-NL, MP50.8-NL / MHG-60MAD + MHG-MP80-NL / MHG-MP80-NL, -MP100-NL / MHA-130AS / MHA-150S



Rectangle						
Part Number	AxB [mm]	Thickness t [mm]	Material	Surface flatness	Surface Quality (Scratch-Dig)	Rear Surface
OFB-1015R03-4	10x15	3	BK7	$\lambda/4$	10-5	Ground
OFB-1015R03-10	10x15	3	BK7	$\lambda/10$	10-5	Ground
OFB-1015R05-4	10x15	5	BK7	$\lambda/4$	10-5	Ground
OFB-1015R05-10	10x15	5	BK7	$\lambda/10$	10-5	Ground
OFB-1015R05-20	10x15	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-1015R06-20	10x15	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-1525R03-4	15x25	3	BK7	$\lambda/4$	10-5	Ground
OFB-1525R03-10	15x25	3	BK7	$\lambda/10$	10-5	Ground
OFB-1525R05-4	15x25	5	BK7	$\lambda/4$	10-5	Ground
OFB-1525R05-10	15x25	5	BK7	$\lambda/10$	10-5	Ground
OFB-1525R05-20	15x25	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-1525R06-20	15x25	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-2030R05-1	20x30	5	BK7	λ	10-5	Ground
OFB-2030R05-4	20x30	5	BK7	$\lambda/4$	10-5	Ground
OFB-2030R05-10	20x30	5	BK7	$\lambda/10$	10-5	Ground
OFB-2030R05-20	20x30	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-2030R06-20	20x30	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFB-2535R05-1	25x35	5	BK7	λ	10-5	Ground
OFB-2535R05-4	25x35	5	BK7	$\lambda/4$	10-5	Ground
OFB-2535R05-10	25x35	5	BK7	$\lambda/10$	10-5	Ground
OFB-2535R05-20	25x35	5	BK7	$\lambda/20$	10-5	Ground
OFSQ-2535R06-20	25x35	6	Synthetic fused silica	$\lambda/20$	20-10	Ground
OFFXP-3040R06-1	30x40	6	PX	λ	10-5	Polished
OFFXP-3040R06-4	30x40	6	PX	$\lambda/4$	10-5	Polished
OFFXP-3040R06-10	30x40	6	PX	$\lambda/10$	10-5	Polished
OFFXP-3040R06-20	30x40	6	PX	$\lambda/20$	10-5	Polished
OFSQP-3040R08-20	30x40	8	Synthetic fused silica	$\lambda/20$	20-10	Polished
OFFXP-4050R08-1	40x50	8	PX	λ	10-5	Polished
OFFXP-4050R08-4	40x50	8	PX	$\lambda/4$	10-5	Polished
OFFXP-4050R08-10	40x50	8	PX	$\lambda/10$	10-5	Polished
OFFXP-4050R08-20	40x50	8	PX	$\lambda/20$	10-5	Polished
OFFXP-5060R10-1	50x60	10	PX	λ	10-5	Polished
OFFXP-5060R10-4	50x60	10	PX	$\lambda/4$	10-5	Polished
OFFXP-5060R10-10	50x60	10	PX	$\lambda/10$	10-5	Polished
OFFXP-5060R10-20	50x60	10	PX	$\lambda/20$	10-5	Polished
OFFXP-6080R12-1	60x80	12	PX	λ	10-5	Polished
OFFXP-6080R12-4	60x80	12	PX	$\lambda/4$	10-5	Polished
OFFXP-6080R12-10	60x80	12	PX	$\lambda/10$	10-5	Polished
OFFXP-6080R12-20	60x80	12	PX	$\lambda/20$	10-5	Polished
OFFXP-80100R15-1	80x100	15	PX	λ	10-5	Polished
OFFXP-80100R15-4	80x100	15	PX	$\lambda/4$	10-5	Polished
OFFXP-80100R15-10	80x100	15	PX	$\lambda/10$	10-5	Polished

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