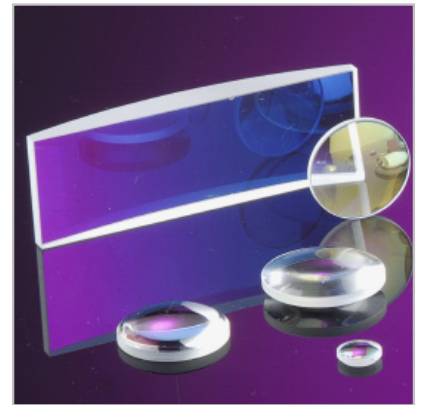


Curved Mirror Substrates

Curved mirror substrates are available as plano-concave or plano-convex substrates. They differ from plano-concave and plano-convex lenses in their center thickness, which is higher in mirror substrates. This counteracts the possible deterioration of the surface figure resulting from the application of dielectric coatings.

All mirror substrates can be manufactured with customer-specific radii of curvature.



Specifications

Material	BK7, fused silica
Diameter tolerance	+ 0.00 mm; - 0.20 mm
Thickness tolerance	± 0.20 mm
Radii tolerance	± 0.5 % for rcc/rcx < 0.5 m ± 1% for 0.5 m < rcc/rcx < 2 m For radii larger than 2 m please check with our sales department.
Clear aperture	85 % of diameter
Surface figure Curved surface Plane surface	3/-(0.2/-) according to ISO 10110 3/0.2(0.2/-) according to ISO 10110 λ/10 according to MIL-O-1380A
Surface quality	5/4 x 0.025 for 1.0" substrates according to ISO 10110 10-5 according to MIL-O-1380A
Centering error	4/3' according to ISO 10110
Protective chamfer	0.2 - 0.4 mm x 45°

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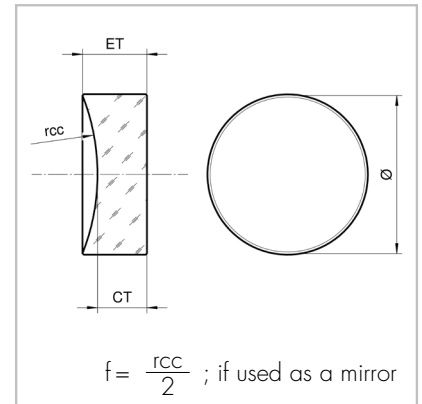
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Spherical Concave Mirror Substrates

Concave mirror substrates are often used in resonators.

This application is very advantageous because the concave surface facilitates a resonator that is easy to adjust.



Nomenclature

SM	05	-0.10	C	
Product code (Spherical Concave Mirror Substrates)	Diameter in inches x 10	Concave radius of curvature in m	Material code UV: fused silica C: BK7	
SM	05	25	-0.10	C
Product code (Spherical Concave Mirror Substrates)	Diameter in inches x 10	Edge thickness in inches x 100	Concave radius of curvature in m	Material code UV: fused silica C: BK7

Note:

If no thickness is given the standard value is 0.375".

Part No.	Diameter Ø	Edge Thickness ET	Concave Radius rcc [m]	Material
SM05-0.010C	0.500"	0.375"	0.010	BK7
SM05-0.025C	0.500"	0.375"	0.025	BK7
SM05-0.050C	0.500"	0.375"	0.050	BK7
SM05-0.075C	0.500"	0.375"	0.075	BK7
SM05-0.10C	0.500"	0.375"	0.100	BK7
SM05-0.15C	0.500"	0.375"	0.150	BK7
SM05-0.20C	0.500"	0.375"	0.200	BK7
SM05-0.25C	0.500"	0.375"	0.250	BK7
SM05-0.30C	0.500"	0.375"	0.300	BK7
SM05-0.50C	0.500"	0.375"	0.500	BK7
SM05-0.75C	0.500"	0.375"	0.750	BK7
SM05-1.00C	0.500"	0.375"	1.00	BK7
SM05-2.00C	0.500"	0.375"	2.00	BK7
SM05-3.00C	0.500"	0.375"	3.00	BK7
SM05-5.00C	0.500"	0.375"	5.00	BK7
SM05-10.0C	0.500"	0.375"	10.0	BK7
SM0525-0.010C	0.500"	0.250"	0.010	BK7
SM0525-0.025C	0.500"	0.250"	0.025	BK7
SM0525-0.050C	0.500"	0.250"	0.050	BK7
SM0525-0.10C	0.500"	0.250"	0.100	BK7
SM0525-0.15C	0.500"	0.250"	0.150	BK7
SM0525-0.25C	0.500"	0.250"	0.250	BK7
SM0525-1.00C	0.500"	0.250"	1.00	BK7
SM0525-2.00C	0.500"	0.250"	2.00	BK7
SM0525-3.00C	0.500"	0.250"	3.00	BK7
SM0525-5.00C	0.500"	0.250"	5.00	BK7
SM0525-10.0C	0.500"	0.250"	10.0	BK7
SM07-0.75C	0.750"	0.375"	0.750	BK7
SM07-1.00C	0.750"	0.375"	1.00	BK7
SM07-2.00C	0.750"	0.375"	2.00	BK7

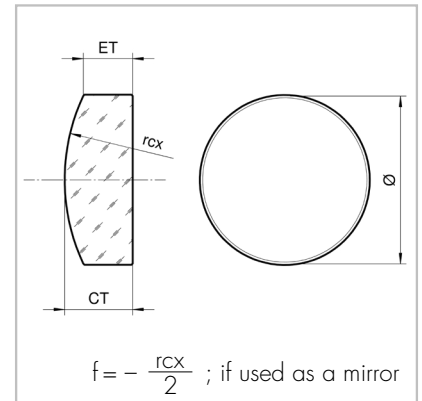
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Part No.	Diameter Ø	Edge Thickness ET	Concave Radius rcc [m]	Material
SM07-3.00C	0.750"	0.375"	3.00	BK7
SM07-5.00C	0.750"	0.375"	5.00	BK7
SM0725-5.00C	0.750"	0.250"	5.00	BK7
SM1-0.050C	1.000"	0.375"	0.050	BK7
SM1-0.10C	1.000"	0.375"	0.100	BK7
SM1-0.15C	1.000"	0.375"	0.150	BK7
SM1-0.20C	1.000"	0.375"	0.200	BK7
SM1-0.30C	1.000"	0.375"	0.300	BK7
SM1-0.40C	1.000"	0.375"	0.400	BK7
SM1-0.50C	1.000"	0.375"	0.500	BK7
SM1-0.60C	1.000"	0.375"	0.600	BK7
SM1-0.75C	1.000"	0.375"	0.750	BK7
SM1-1.00C	1.000"	0.375"	1.00	BK7
SM1-1.50C	1.000"	0.375"	1.50	BK7
SM1-2.00C	1.000"	0.375"	2.00	BK7
SM1-3.00C	1.000"	0.375"	3.00	BK7
SM1-5.00C	1.000"	0.375"	5.00	BK7
SM1-10.0C	1.000"	0.375"	10.0	BK7
SM1025-0.10C	1.000"	0.250"	0.100	BK7
SM1025-0.25C	1.000"	0.250"	0.250	BK7
SM1025-0.30C	1.000"	0.250"	0.300	BK7
SM1025-0.40C	1.000"	0.250"	0.400	BK7
SM1025-0.50C	1.000"	0.250"	0.500	BK7
SM1025-0.75C	1.000"	0.250"	0.750	BK7
SM1025-1.00C	1.000"	0.250"	1.00	BK7
SM1025-1.50C	1.000"	0.250"	1.50	BK7
SM1025-2.00C	1.000"	0.250"	2.00	BK7
SM1025-3.00C	1.000"	0.250"	3.00	BK7
SM1025-5.00C	1.000"	0.250"	5.00	BK7
SM1025-10.0C	1.000"	0.250"	10.0	BK7

Many fused silica items are as well available from stock as BK7 items. Other sizes and materials are available upon request.

Spherical Convex Mirror Substrates

Convex mirror substrates are often used in resonators.



Nomenclature

SMX	05	-0.10	C	
Product code (Spherical Mirror Convex Substrate)	Diameter in inches x 10	Convex radius of curvature in m	Material code UV: fused silica C: BK7	
SMX	05	25	-0.10	C
Product code (Spherical Mirror Convex Substrate)	Diameter in inches x 10	Center thickness in inches x 100	Convex radius of curvature in m	Material code UV: fused silica C: BK7

Note:

If no thickness is given the standard value is 0.375".

BK7 Convex Spherical Mirror Blanks

Part No.	Diameter Ø	Center Thickness CT	Convex Radius rcx [m]	Material
SMX05-0.50C	0.500"	0.375"	0.500	BK7
SMX05-1.00C	0.500"	0.375"	1.00	BK7
SMX07-0.10C	0.750"	0.375"	0.100	BK7
SMX07-3.00C	0.750"	0.375"	3.00	BK7
SMX07-4.00C	0.750"	0.375"	4.00	BK7
SMX1-0.50C	1.000"	0.375"	0.500	BK7
SMX1-1.00C	1.000"	0.375"	1.00	BK7
SMX1-1.50C	1.000"	0.375"	1.50	BK7
SMX1-2.00C	1.000"	0.375"	2.00	BK7
SMX1025-0.50C	1.000"	0.250"	0.500	BK7
SMX1025-1.00C	1.000"	0.250"	1.00	BK7

Many fused silica items are as well available from stock as BK7 items. Other sizes and materials are available upon request.

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