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Material Properties

Melles Griot Optical Materials

Melles Griot simple lenses are made of synthetic fused silica, BK7 grade A fine annealed glass, and several other materials. The following table identifies the materials used in Melles Griot lenses. Some of these materials are also used in prisms, mirror substrates, and other products.

Glass type designations and physical constants are the same as those published by Schott Glass. Melles Griot occasionally uses corresponding glasses made by other glass manufacturers but only when this does not result in a significant change in optical properties.

[Five Schott Glass Types](#)

[Synthetic Fused Silica](#)

[Optical Crown Glass](#)

[Low-Expansion Borosilicate Glass](#)

[Sapphire](#)

[ZERODUR®](#)

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The quality of performance of optical lenses and prisms depends on the quality of the material used. No amount of skill during manufacture can eradicate striae, bubbles, inclusions, or variations in index. Melles Griot takes considerable care in its material selection, using only first-class optical materials from reputable glass manufacturers. The result is reliable, repeatable, consistent performance.

The physical constant values given in the links to the specific materials are reasonable averages based on historical experience. Individual material specimens may deviate from these means. Materials having tolerances more restrictive than those published in this optics guide, or materials traceable to specific manufacturers, are available only on special request.

Melles Griot Lens Materials

Materials	Lens Product Numbers	
Synthetic Fused Silica, UV Grade	01 LQC	01 LQP
	01 LQD	01 LQS
Synthetic Fused Silica, Optical Quality	01 LQB	01 LQT
	01 LQF	
	Selected 01 CMP Series	
BK7, Grade A Fine Annealed	01 LCN	01 LMN
	01 LCP	01 LMP
	01 LDK	01 LPK
	01 LDX	01 LPX
	01 LFS	
LaSFN9, Grade A Fine Annealed	01 LPX 401	01 LPX 411
	01 LPX 405	01 LPX 413
	01 LPX 407	006 LMS
BaK1, Grade A Fine Annealed	01 LPX 415	01 LPX 423
	01 LPX 421	
Optical Crown	01 LAG	
Low-Expansion Borosilicate Glass (LEBG)	Selected 01 CMP series	
SF11, Grade A Fine Annealed	06 LXP	
SK11 and SF5, Grade A fine Annealed	06 LAI	
Sapphire	01 LSX	
Various Glass Combinations	01 LAI	01 FWP 001

Various Glass Combinations

01 LAO

01 LAT

01 LBX

04 ECW

04 EHY

04 EPP

04 ERA 001

04 EWA

04 EWP 001

04 OAS

04 OAP

06 DDL

06 DBF

06 GLC

06 GLR

09 LBM

09 LCM

09 LSL

F2

Various multielement lenses

Calcium Fluoride

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