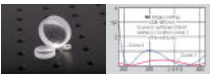
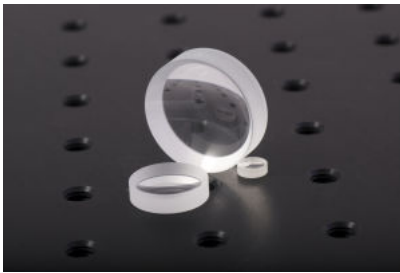


+44 (0)1223 866120



Home (https://www.comaroptics.com/) > Components Store (https://www.comaroptics.com/components) > Lenses (https://www.comaroptics.com/components/lenses) > Concave lenses (https://www.comaroptics.com/components/lenses/concave-lenses) > Uv silica concave lenses (https://www.comaroptics.com/components/lenses/concave-lenses/uv-silica-concave-lenses)

## UV-silica concave lenses



Enlarge main image

### Description

This range provides negative lenses for use down to 170nm in the UV, or for hostile environments requiring greater thermal, chemical or radiation resistance than ordinary glasses. UV fused silica also exhibits very low fluorescence.

AR-coated lenses are offered for improved UV transmittance.

Specification    Technical    Options    Sets with special pricing

#### Spherical aberration calculation

To calculate the spherical aberration of a system and evaluate its effect proceed as follows.

##### 1. Calculate element contributions

For each lens element work out the wavefront aberration A:

$$A = ky^4/f^3$$

where y is the semi-aperture, or maximum ray height at the element (from an on-axis object); f is the element focal length. Coefficient k depends on material, shape and conjugates and is given in the relevant section of this catalogue.

##### 2. Sum contributions

Simply add the contributions algebraically to give the total wavefront aberration  $\Sigma A$  (deviation from the best-fit sphere)

##### 3. Evaluate effect

If  $\Sigma A$  is less than  $\lambda/4$  the system is diffraction limited and aberration can usually be neglected. For larger aberration, the geometrical spot diameter D is given by:

$$D = 8 \Sigma A/v$$

where y is as above, for the last element, and v is the distance from this element to the image.

For further detail request our Technical Note 'Spherical aberration'.

**Aberration calculation for UVFS lenses**

Note that aberration is negative.

Less...

[Click here to filter results](#)

Item code	Focal length (mm)	Diameter (mm)	Coating type	Back FL (mm)	Centre thickness (mm)	Edge thickness (mm)	Radius (mm)	Price per item (£ GBP)	Stock available	Volume discount available	Datasheets & customisation options	Select amount
10 NS 06	10	6.3	Uncoated	11	1.5	2.8	4.58	£57.64		/	/contact	1 <input type="button" value="Add"/>
10 NU 06	10	6.3	AR coated 248-400nm	11	1.5	2.8	4.58	£72.93		/	/contact	1 <input type="button" value="Add"/>
16 NS 10	16	10	Uncoated	17	1.5	3.5	7.34	£55.00		/	/contact	1 <input type="button" value="Add"/>

<b>16 NU 10</b>	16	10	AR coated 248-400nm	17	1.5	3.5	7.34	£70.18	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>25 NS 16</b>	25	16	Uncoated	26	1.5	4.8	11.5	£61.49	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>25 NU 16</b>	25	16	AR coated 248-400nm	26	1.5	4.8	11.5	£78.10	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>40 NS 25</b>	40	25	Uncoated	41	1.5	6.4	18.3	£72.60	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>40 NU 25</b>	40	25	AR coated 248-400nm	41	1.5	6.4	18.3	£92.29	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>63 NS 25</b>	63	25	Uncoated	64	1.5	4.3	28.9	£70.95	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>63 NU 25</b>	63	25	AR coated 248-400nm	64	1.5	4.3	28.9	£90.64	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>100 NS 25</b>	100	25	Uncoated	101	1.5	3.2	45.8	£70.95	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>
<b>100 NU 25</b>	100	25	AR coated 248-400nm	101	1.5	3.2	45.8	£90.64	(/	(/contac	<input type="text" value="1"/>	<input type="button" value="Add"/>

For more information regarding stock availability icons, please see our shipping page (/shipping).

## Components

Lenses

(/components/lenses)

Filters

(/components/filters)

Plano optics

(/components/plano-optics)

Electro-optics

(/components/electro-optics)

Optomechanics

(/components/optomechanics)

## Useful info

Returns

(/uploads/rma.pdf)

Shipping info (/shipping)

Open an account

(/register)

Customize enquiry

(/contact/modify)

Request a catalogue

(/contact/request-catalogue)

Contact us (/contact)

## FEEDBACK (/contact)

Your comments help us  
improve our service

**+44 (0)1223 866120**

**info.uk@comaroptics.com**

**(mailto:info.uk@comaroptics.com)**

Registered office: Comar Optics Ltd, Photon House, Station Road, Linton, Cambridge, CB21 4NW, UK

Privacy policy (/privacy) | Terms and conditions (/terms) | Terms of sale (/terms-of-sale) | Sitemap (/sitemap)

