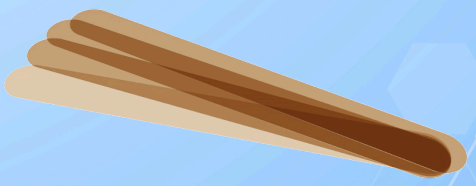
Mica discs in elongated shape with round ends

Mica discs with round ends made of muscovite natural mica

Mica



USAGE

Mica discs for borosilicate glass rods according to DIN 7081 as reliable heat protection and to ensure functionality

Mica discs are an effective accessory for view glass rods made of borosilicate glass according to DIN 7081. They serve as heat protection and a protective layer between the process medium and the glass surface, especially in applications with aggressive media, superheated steam, or high temperatures.

In conjunction with MAXOS® borosilicate glass rods according to DIN 7081, operating temperatures of up to 320 °C are possible. The mica discs significantly extend the lifespan of the view glass plates.

The operating principle is based on the high temperature and chemical resistance of natural muscovite mica. The mica disc is positioned between the process medium and the sight glass without significantly impairing optical transparency. This prevents the borosilicate glass from being damaged by erosive or corrosive media as well as thermal shocks.

Terms and Conditions		
	Muskovit	Phlogopit
Thermal stability	500 °C	700 °C
Maximum permissible temperature in conjunction with MAXOS® borosilicate glass:	320 °C	320 °C
Pressure	dependent on the sight glass rod	

MEASUREMENTS

Long Mica discs 30 mm			Long Mica discs 34 mm		
Length x Width L x B	Material Thickness S	Quality	Length x Width L x B	Material Thickness S	Quality
115 x 30 mm	0.15 - 0.20 mm	V4	115 x 34 mm	0.15 - 0.20 mm	V4
140 x 30 mm	0.15 - 0.20 mm	V4	140 x 34 mm	0.15 - 0.20 mm	V4
165 x 30 mm	0.15 - 0.20 mm	V4	165 x 34 mm	0.15 - 0.20 mm	V4
190 x 30 mm	0.15 - 0.20 mm	V4	190 x 34 mm	0.15 - 0.20 mm	V4
220 x 30 mm	0.15 - 0.20 mm	V4	220 x 34 mm	0.15 - 0.20 mm	V4
250 x 30 mm	0.15 - 0.20 mm	V4	250 x 34 mm	0.15 - 0.20 mm	V4
280 x 30 mm	0.15 - 0.20 mm	V4	280 x 34 mm	0.15 - 0.20 mm	V4
320 x 30 mm	0.15 - 0.20 mm	V4	320 x 34 mm	0.15 - 0.20 mm	V4
340 x 30 mm	0.15 - 0.20 mm	V4	340 x 34 mm	0.15 - 0.20 mm	V4
370 x 30 mm	0.15 - 0.20 mm	V4	370 x 34 mm	0.15 - 0.20 mm	V4
420 x 30 mm	0.15 - 0.20 mm	V4	420 x 34 mm	0.15 - 0.20 mm	V4

1) Special dimensions possible

Operating conditions:
Through production and quality tests during the process, the property values of the Mica discs and the tight tolerances are guaranteed.
With these excellent properties, Mica discs can be used as an additional safety feature, with sight glasses, under extreme conditions.
The Mica discs provide reliable protection, especially under high thermal and chemical loads. They serve as a barrier against aggressive media, prolong the service life of the underlying sight glass rods, and thus reduce maintenance costs and downtime of systems.
Furthermore, the precise processing ensures a uniform pressure distribution on the sight glass, which additionally increases mechanical stability. The flexible applications of ACI Mica discs make them an ideal complement for safety-critical applications in the chemical, pharmaceutical, and food industries, as well as in power plants and systems with high-temperature processes.

TECHNICAL INFORMATION

Technical information		
Expansion Coefficient (K–¹)	90 x 10–7	135 x 10–7
Modulus of Elasticity (N/mm²)	180 x 10-³	170 x 10-³
Thermal Conductivity (W/(m·K))	0.25 ... 0.75	~ 1.7

Other properties		
Radiation Resistance	Very Good	Very Good
Resistance to Organic Solvents	Resistant	Resistant
Acid Resistance	Resistant (except Hydrofluoric acid)	Resistant (except hot acids)
Oil Resistance	Resistant	Resistant
Color	reddish, green, colorless, brown	amber, green

Properties	V-1	V-2	V-3	V-4	V-5	V-6	V-7	V-7A	V-8	V-9	V-10	V-10A
Crystallographic Coloring	X	*d	*d	*d	*	*	*	*	*	*	*	*
Air Inclusions – Very Light	X	*	*	*	*	*	*	*	*	*	*	*
Air Inclusions – Light	X	X	*	*	*	*	*	*	*	*	*	*
Air Inclusions – Medium	X	X	X	*e	*f	*	*	*	*	*	*	*
Air Inclusions – Strong	X	X	X	X	X	*	*	*	*	*	*	*
Cloudy Spots	X	X	X	X	X	X	*g	*h	*	*	*	*
Mineral Stains – Light, Black and Red	X	X	X	X	X	*d	*d	*h	*	*	*	*
Mineral Stains – Black	X	X	X	X	X	X	X	*g	X	*d	*g	*h
Mineral Stains – Red	X	X	X	X	X	X	X	*g	X	X	*d	*
Mineral Stains – Black and Red	X	X	X	X	X	X	X	X	X	X	X	*
Green Spots (Plant-Like)	X	X	X	X	*d	*g	*g	*	*	*	*	*
Clay Spots	X	X	X	X	X	*d	*g	*	X	X	*d	*d
Wavy – Almost Flat	*	*	*	*	*	*	*	*	*	*	*	*
Wavy – Light	X	X	*	*	*	*	*	*	*	*	*	*
Wavy – Medium	X	X	X	*	*	*	*	*	*	*	*	*
Wavy – Heavy	X	X	X	X	X	*	*	*	X	X	X	*
Hardness – Hard	*	*	*	*	*	*	*	*	*	*	*	*
Hardness – Soft	X	X	X	X	X	X	S	*	X	X	X	S
Stones and Holes	X	X	X	X	X	X	X	X	X	X	X	X
Bumps	X	X	X	X	X	X	S	*g	X	X	X	X
Offsets	X	X	X	X	X	X	X	X	X	X	X	X
Combs	X	X	X	X	X	X	S	*g	X	X	X	X
Cracks	X	X	X	X	X	X	X	X	X	X	X	X
Breaks	X	X	X	X	X	X	X	X	X	X	X	X
Hair Cracks	X	X	X	X	X	X	X	X	X	X	X	X
Splits	X	X	X	X	X	X	X	X	X	X	X	X
Layer Faults	X	X	X	X	X	X	X	X	X	X	X	X
Leaf Splits	X	X	X	X	X	X	X	*	X	X	X	X
Abrasion	X	X	X	X	X	X	S	*	X	*	*	*

Legend	
Symbol	Meaning
*	Allowed
X	Not Allowed
S	Only allowed if specified
a	Little and small, on a quarter of the usable area
b	On half of the usable area
c	Very dense
d	Light
e	On two thirds of the area
f	Even
g	Medium-heavy
h	Heavy

QUICK OVERVIEW

heat resistant up to 320 °C

for liquid media

for gaseous media

up to 500 mm length

custom designs possible

protection from aggressive media

ACI Industriearmaturen GmbH

info@aci24.com
+49 (0) 2461 91634 00
www.aci24.com
+49 (0) 2461 91634 44
Königskamp 19 · 52428 Jülich · Germany