Data collection sheet for the estimation of the thermal breakage risk of glazings

Allgemeines

The thermal stress analysis allows an estimation of the thermal breakage risk for glazing. It is the duty of the executing company to check and interpret the results. The calculations are carried out with the WINTHS program from Sommer-Informatik and serve only as an estimate, since not all boundary conditions of the real application can be taken into account.

The data collection sheet for the analysis must be filled in carefully. All boundary conditions affecting the temperatures of the glazing must be specified. If several types of glass are used in the project, please fill in a data sheet for each type of glass.

Name		Company	
Email		Telephone	

Object

Object description	
City	
Country	

Glazing (from outside to inside)	**Type** (e.g.: laminated safety glass out of floatglass sunbelt A71; 90% Ar)	**Thickness** in mm
Pane 1		
interpane space		
Pane 2		
interpane space 2		
Pane 3		
interpane space 3		
Pane 4		

arcon Flach- und Sicherheitsglas GmbH & Co. KG | info@arcon-glas.de | www.arcon-glas.de
Industriestraße 10 | 91555 Feuchtwangen
Am Amselberg 4 | 07751 Bucha

arcon perfection in glass

Partial shading □ yes □ no

Installation angle
□ vertical (90°)
□ inclined – angle to the horizontal: _____ °

Facade orientation
□ south □ east □ west □ north
□ south west □ south east □ north west □ north east

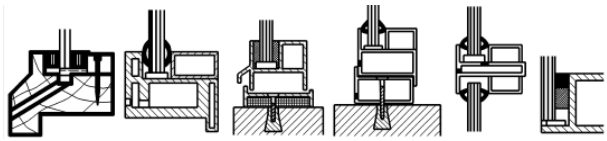
Bearing
□ all sides □ 3-sided width free □ 3-sided height free
□ 2-sided height free □ 2-sided width free □ clamped below

Glass edge
□ sawn
□ cut (KG), seamed (KGS)
□ treated (KGN, KPO)

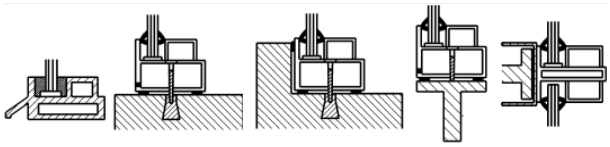
Frame material
□ Wood / PVC
□ Metal

Solar Heat Gain Coefficient Frame
Uf-value: _____ W/(m²K)

Thermal inertia frame
□ low



□ middle



□ high

Type
□ Fixed glazing
□ to open Type: _____
(e.g. side-hung windows, sliding windows*, etc.)

* If, in the case of sliding windows, the sliding sash is positioned a short distance in front of fixed glazing when open, we generally recommend the use of thermally toughened glass.

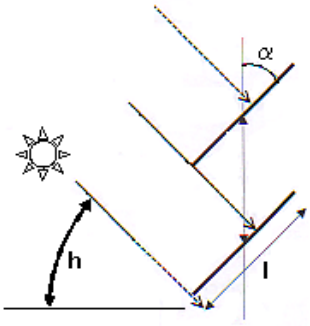
Exterior sun protection □ yes □ no

Type / Manufacturer:_____

Material: _____

Color: _____

Data for lamella calculation



Lamella width l: _____ mm

Center distance d: _____ mm

Lamella inclination □: _____ ° (5° bis 90°)

Sun position h: _____ ° (1° bis 85°)

Distance to glazing: _____ mm

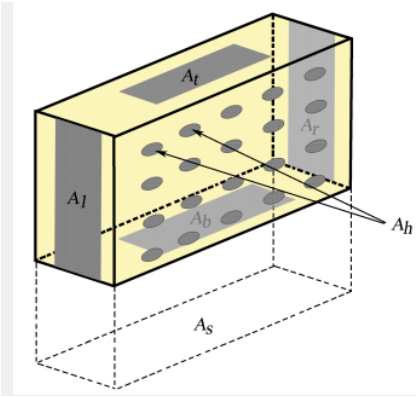
Interpane space specifications

Ventilation type Ventilation: □ free □ mechanical

Air stream from: □ inside □ outside

to: □ inside □ outside

Pressure loss factors



Cross section of the interspace As: _____ cm²

Surface of the top opening At: _____ cm²

Surface of the lowest opening Ab: _____ cm²

Total surface of the holes in the orifice plate Ah: _____ cm²

Surface of the left opening Al: _____ cm²

Surface of the right opening Ar: _____ cm²

arcon Flach- und Sicherheitsglas GmbH & Co. KG | info@arcon-glas.de | www.arcon-glas.de
Industriestraße 10 | 91555 Feuchtwangen
Am Amselberg 4 | 07751 Bucha

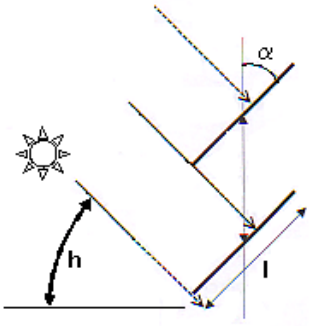
Sun protection in interpane space □ yes □ no

Type / Manufacturer:_____

Material: _____

Color: _____

Data for lamella calculation



Lamella width l: _____ mm

Center distance d: _____ mm

Lamella inclination □: _____ ° (5° bis 90°)

Sun position h: _____ ° (1° bis 85°)

Distance to glazing: _____ mm

Interpane space specifications

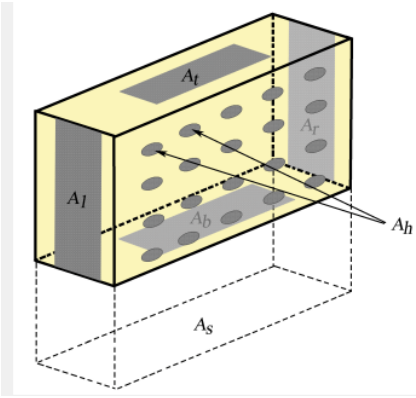
Ventilation type spacer: □ closed □ open

if open, ventilation type Ventilation: □ free □ mechanical

Air stream from: □ inside □ outside

to: □ inside □ outside

Pressure loss factors



Cross section of the interspace As: _____ cm²

Surface of the top opening At: _____ cm²

Surface of the lowest opening Ab: _____ cm²

Total surface of the holes in the orifice plate Ah: _____ cm²

Surface of the left opening Al: _____ cm²

Surface of the right opening Ar: _____ cm²

arcon Flach- und Sicherheitsglas GmbH & Co. KG | info@arcon-glas.de | www.arcon-glas.de
Industriestraße 10 | 91555 Feuchtwangen
Am Amselberg 4 | 07751 Bucha

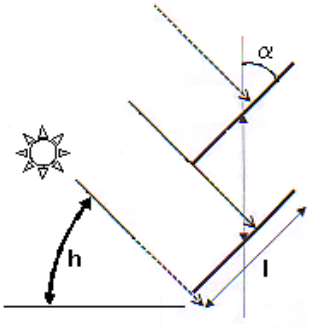
Internal sun protection □ yes □ no

Type / Manufacturer:_____

Material: _____

Color: _____

Data for lamella calculation



Lamella width l: _____ mm

Center distance d: _____ mm

Lamella inclination □: _____ ° (5° bis 90°)

Sun position h: _____ ° (1° bis 85°)

Distance to glazing: _____ mm

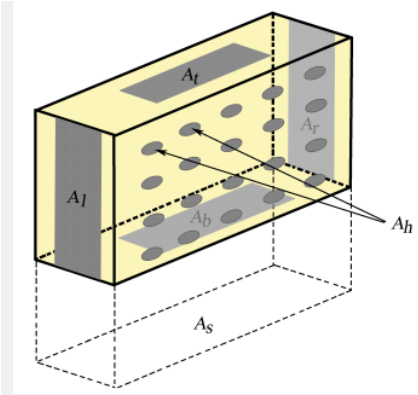
Interpane space specifications

Ventilation type Ventilation: □ free □ mechanical

Air stream from: □ inside □ outside

to: □ inside □ outside

Pressure loss factors



Cross section of the interspace As: _____ cm²

Surface of the top opening At: _____ cm²

Surface of the lowest opening Ab: _____ cm²

Total surface of the holes in the orifice plate Ah: _____ cm²

Surface of the left opening Al: _____ cm²

Surface of the right opening Ar: _____ cm²

Other factors that can influence the temperature of the glazing?
(Heating, air conditioning, objects in the immediate vicinity of the glazing, suspensions, ceilings, ...)

□ yes □ no

If yes, please attach full description.

Important notes

All estimates refer exclusively to arcon® products. arcon® assumes no liability for the completeness and results of the estimate. The calculations are carried out with the WINTHS program from Sommer-Informatik and serve only as an estimate, since not all boundary conditions of the real application can be taken into account. It is the duty of the executing company to check and confirm the results. arcon® does not assume any liability or guarantee with the estimation, but merely provides an informative service.

Date:		Signature:	

Please send the completed questionnaire to service@isolar.de.

Please do not hesitate to contact us if you have any questions.

arcon Flach- und Sicherheitsglas GmbH & Co. KG
Industriestraße 10
D-91555 Feuchtwangen
Phone +49 9852 6700-0