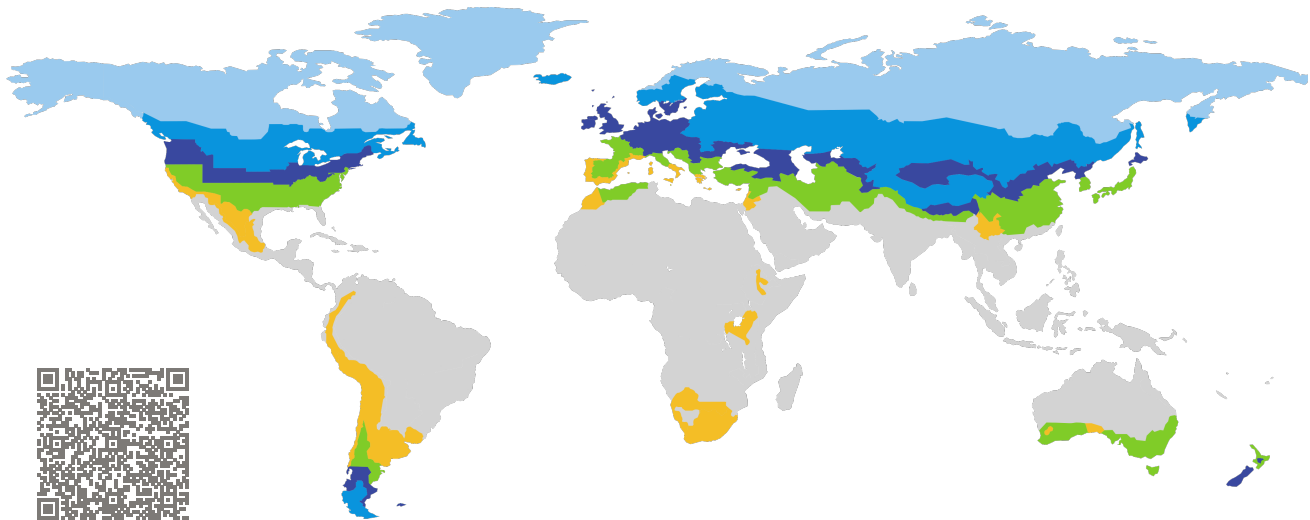


CERTIFICATE

Certified Passive House Component

Component-ID 1409sp01 valid until 31st December 2019

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category: **Edge-bond for low-E-glazing: Secondary seal**

Manufacturer: **Dow Silicones Belgium SPRL,
Seneffe, Belgium**

Product name: **DOWSIL™ 3364 Warm Edge IG Sealant**

This certificate was awarded based on the following criteria:

Depending on the climatic region, the spacer prevents high surface temperatures, which can cause mould. At least 3 out of the 7 reference frames fulfilled the spacer hygiene criteria for the relevant climatic region.

Hygiene $f_{Rsi} \geq 0.80$

The specific resistance of the spacer's edges is higher than the climate-independent minimum requirement.

Efficiency $R_E = 5.88 \text{ m K/W} \geq 3.50 \text{ m K/W}$

| Type |
|---------------------------------|
| Silicone |
| Height of sealing |
| 4 / 6 mm |
| Thermal conductivity of sealing |
| 0.190 W/(m K) |

Passive House
efficiency class

phE

phD

phC

phB

phA

phA+

arctic climate



**CERTIFIED
COMPONENT**

Passive House Institute

Dow Silicones Belgium SPRL

Parc Industriel Zone C, Rue Jules Bordet, 7180 Seneffe, Belgium

☎ +32 64 88 85 93 | ✉ sebastien.dath@dow.com | 🌐 <http://www.dow.com> |

Description

Thermally improved secondary sealant based on silicone for the edge of insulating glass units.
Tested thickness of secondary seal: Windows: 4 mm, Curtain walls: 6 mm

Thermal conductivity: 0.190 W/(m K)




































Explanation

Sealants are categorized into different efficiency classes based on the resistance of their edges R_E . For the certification of secondary sealants, the PHI-phA-reference spacer with a height of 7 mm and a thermal conductivity of 0.2 W/(mK) is used.

A detailed report with the calculations is available from either the manufacturer or the Passive House Institute.

The Passive House Institute has defined global component requirements for seven climate regions. In principle, components that have been certified for climates with higher requirements can also be used in climates with lower requirements. This may be economically advantageous.

Further information regarding certification is available on www.passivehouse.com and www.passipedia.org.

| Climate | Reference frames calculated with Silicone | | | | |
|---------------------------------|---|---|---|---|---|
| | Arctic ✓ | Cool ✓ | Cool temperate ✓ | Warm temperate ✓ | Warm ✓ |
| Glass | Quadruple | Triple | Triple | Triple | Double |
| Glass package | 4/12/3/12/3/12/4 | 6/18/2/18/6 | 6/16/6/16/6 | 6/16/6/16/6 | 6/16/6 |
| Glass U-value | 0.35 W/(m ² K) | 0.52 W/(m ² K) | 0.70 W/(m ² K) | 0.70 W/(m ² K) | 1.20 W/(m ² K) |
| Timber-aluminium integral frame |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.48 | 0.62 | 0.73 | 0.87 | 1.03 |
| Ψ_g [W/(m K)] | 0.027 | 0.028 | 0.029 | 0.028 | 0.034 |
| f_{Rsi} [-] | 0.81 ✓ | 0.77 ✓ | 0.73 ✓ | 0.71 ✓ | 0.61 ✓ |
| Timber-aluminium |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.54 | 0.57 | 0.75 | 0.97 | 1.19 |
| Ψ_g [W/(m K)] | 0.028 | 0.029 | 0.030 | 0.030 | 0.037 |
| f_{Rsi} [-] | 0.77 | 0.75 | 0.70 ✓ | 0.67 ✓ | 0.55 ✓ |
| Timber |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.51 | 0.53 | 0.78 | 0.86 | 0.99 |
| Ψ_g [W/(m K)] | 0.025 | 0.027 | 0.028 | 0.028 | 0.034 |
| f_{Rsi} [-] | 0.79 | 0.78 ✓ | 0.74 ✓ | 0.74 ✓ | 0.63 ✓ |
| Vinyl |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.70 | 0.75 | 0.82 | 1.02 | 1.16 |
| Ψ_g [W/(m K)] | 0.029 | 0.031 | 0.032 | 0.033 | 0.039 |
| f_{Rsi} [-] | 0.79 | 0.77 ✓ | 0.71 ✓ | 0.73 ✓ | 0.62 ✓ |
| Aluminium |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.60 | 0.61 | 0.71 | 0.73 | 1.17 |
| Ψ_g [W/(m K)] | 0.029 | 0.031 | 0.033 | 0.033 | 0.041 |
| f_{Rsi} [-] | 0.80 ✓ | 0.80 ✓ | 0.77 ✓ | 0.77 ✓ | 0.64 ✓ |
| Curtain wall timber |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.60 | 0.65 | 0.66 | 0.71 | 1.11 |
| Ψ_g [W/(m K)] | 0.037 | 0.036 | 0.038 | 0.038 | 0.050 |
| f_{Rsi} [-] | 0.78 | 0.76 ✓ | 0.73 ✓ | 0.73 ✓ | 0.60 ✓ |
| Curtain wall aluminium |  |  |  |  |  |
| U_f [W/(m ² K)] | 0.67 | 0.73 | 0.75 | 0.79 | 1.33 |
| Ψ_g [W/(m K)] | 0.042 | 0.041 | 0.044 | 0.045 | 0.065 |
| f_{Rsi} [-] | 0.85 ✓ | 0.83 ✓ | 0.81 ✓ | 0.81 ✓ | 0.70 ✓ |