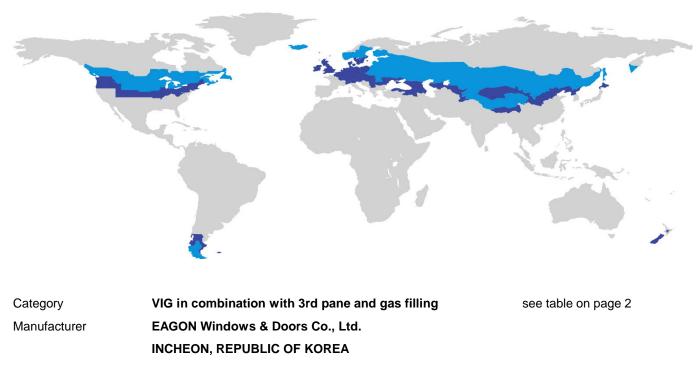
CERTIFICATE

Certified Passive House Component ID: 1187gl03 1190gl03 valid until 31. December 2023

Passive House Institute

Dr. Wolfgang Feist 64283 Darmstadt GERMANY



Product name EAGON Super VIG

Glazing configuration		5 gap (Vak) :5 gap (div) :5				
Coating (name)		IR-selective coating				
ε _{normal}	(eps_normal)	0.013				

This certificate was awarded based on the following criteria:

Climate zone	2 cold climate (VIG + Ar) and (VIG + Kr) are suitable	for arctic cl	imate,	too
U-value requirement maximum allowed Ug-va (for details see table on	lue for this climate zone page 2)	U _g ≤	0.60	W/m²K
0	-outside temperature to fulfil (for details see table on page 2)	t _{comfort, min}	-25	°C
Efficiency criterion The ratio g/Ug describes for details see table on p	the energy efficiency of the glazing age 2	g/U _g =	1.16	



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Product name EAGON Super VIG

Total energy throughput, optical transmission and selectivity

The total energy throuput, optical transmission and the selectivity of a glazing system depend mainly on the coatings, the position of the coatings and the thickness of the glass panes. The values are calculated according to ISO 15099 for the glazing configuration given for this product.

Total energy throughput	(g-value or	· SHGC)	see table below
Optical transmission	(T _{vis})	see table b	elow
Selectivity, S	(T _{vis} / g)	see table b	elow

Heat transfer coefficient, thermal comfort, efficiency classes

The overall heat transfer coefficient in the centre of the glazing package, Ug, depends on the temperature difference between inside and outside, the depth of the gap between glass panes, the gas filling inside the gap, the thickness of the glass panes and the quality of the coatings (eps_normal), if present. It is calculated according ISO 15099 for the given coatings and glazing configuration.

Coating:	IR-selective coating	ε _{normal}	0.013	Glazing configuration 5 gap (Vak) :5 gap (div) :5
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Climate zone		-	cool- temp.	[°C]	warm yy balanc		-	The comfort criterium is achieved down to	g/Ug	Passive House Efficiency Class reached	g	T _{vis}	S T _{vis} / g
	-15	-5	0	5	10	15	20	t _{comfort, min}					
gap	O	verall he	at trans	fer coeff	icient Ug	g [W/(m²	K)]	[°C]	[m²K/W]				
VIG	0.51	0.51	0.51	0.51	0.51	0.51	0.51	-25	0.94	phB	0.48	0.70	1.48
VIG + air *)	0.47	0.47	0.47	0.47	0.47	0.47	0.47	-25	0.96	phA	0.45	0.64	1.42
VIG + Ar **)	0.36	0.35	0.35	0.35	0.35	0.35	0.35	-25	1.10	phA	0.38	0.57	1.49
VIG + Kr **)	0.35	0.33	0.33	0.32	0.32	0.32	0.32	-25	1.16	phA+	0.38	0.57	1.50
<u>+</u>) 1						ليديد				("0			

*) low-e coating with $\varepsilon_{normal} = 0.013$ on surface #3

**) low-e coating with $\varepsilon_{normal} = 0.013$ on surface #3 and #5

Passive House Efficiency Classes	g/U _g [m²K/W]
phA+	1.10
phA	0.95
phB	0.80
phC	0.65
phD	0.50
phE	0.30

Please note:

The minimum design temperature for comfort requirement is given according to the coldest daily average temperature of a test-reference-year. For the energy balance of a building (PHPP), the monthly average temperatures of the climate zone and the according Ug-values (see table) are relevant. The Ug-values are calculated according to ISO 15099. Boundary conditions for temperature and surface heat transfer coefficients are chosen for each climate zone, see certification criteria.

For proper function in a Passive House, these glazings should be used in a well-designed Passive House window frame. A thermally separating spacer has to be used at the glazing edge to reduce thermal bridges.