

Termien selitykset ja lisätietoa ikkunoiden energiatehokkuudesta:

[https://www.motiva.fi/koti\\_ ja\\_ asuminen/rakentaminen/ikkunoiden\\_energialuokitus](https://www.motiva.fi/koti_ ja_ asuminen/rakentaminen/ikkunoiden_energialuokitus)

Kaskipu Oy

<https://kaski.fi/>

Luokkarajat	
A++	≤ 45
A+	< 65
A	< 85
B	< 105
C	< 125
D	< 145
E	< 165
F	< 185
G	≥ 185

Nro	Tyyppi	Karmi- syvyys mm	1. lasi	Kaasu	Väli- lista	2. lasi	Kaasu	Väli- lista	3. lasi	Kaasu	Väli- lista	4. lasi	U W/m <sup>2</sup> ,K	g	L m <sup>3</sup> /m <sup>2</sup> ,h	E kWh/m <sup>2</sup> , a	Energia- luokka	Raportti
1	MEKA-87	170	Float	Argon	Tgi-20	Float	Argon	Tgi-20	Optitherm S1N				0,95	0,48	0,10	58	A+	VTT-S-01726-18
2	MEKA-88	170	Float	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N/6				0,96	0,48	0,10	59	A+	VTT-S-01726-18
3	MEKA-89	170	Float/6	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N				0,96	0,45	0,10	64	A+	VTT-S-01726-18
4	MEKA-90	170	Float/6	Argon	Tgi-18	Float	Argon	Tgi-18	Optitherm S1N/6				0,96	0,45	0,10	64	A+	VTT-S-01726-18
5	MEKA-91	170	Optiphon/8.8	Argon	Tgi-18	Float	Argon	Tgi-16	Optitherm S1N/6				0,96	0,44	0,10	66	A	VTT-S-01726-18
6	MEKA-92	170	Optiphon/10.8	Argon	Tgi-16	Float	Argon	Tgi-16	Optitherm S1N/6				0,96	0,43	0,10	67	A	VTT-S-01726-18
7	MEKA-93	170	Optiphon/12.8	Argon	Tgi-14	Float	Argon	Tgi-12	Optiphon Therm S1N/8.8				1,10	0,42	0,10	88	B	VTT-S-01726-18
8	MEKA-94	170	Anti-Condensation Glass	Argon	Tgi-20	Float	Argon	Tgi-20	Optitherm S1N				0,95	0,45	0,10	63	A+	VTT-S-01726-18
9	MEKA-95	170	Anti-Condensation Glass	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N/6				0,96	0,45	0,10	64	A+	VTT-S-01726-18
10	MEKA-96	170	Anti-Condensation Glass/6	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N				0,96	0,43	0,10	67	A	VTT-S-01726-18
11	MEKA-97	170	Anti-Condensation Glass/6	Argon	Tgi-18	Float	Argon	Tgi-18	Optitherm S1N/6				0,96	0,43	0,10	67	A	VTT-S-01726-18
12	MEKA-98	170	Suncool 70/35	Argon	Tgi-20	Float	Argon	Tgi-20	Float				0,97	0,30	0,10	89	B	VTT-S-01726-18
13	MEKA-99	170	Suncool 70/35	Argon	Tgi-20	Float	Argon	Tgi-18	Float/6				0,98	0,30	0,10	91	B	VTT-S-01726-18
14	MEKA-100	170	Suncool 70/35/6	Argon	Tgi-20	Float	Argon	Tgi-18	Float				0,98	0,29	0,10	92	B	VTT-S-01726-18
15	MEKA-101	170	Suncool 70/35/6	Argon	Tgi-18	Float	Argon	Tgi-18	Float/6				0,97	0,29	0,10	91	B	VTT-S-01726-18
16	MEKA-103	170	Energy N	Argon	Tgi-20	Float	Argon	Tgi-20	Float				0,96	0,33	0,10	83	A	VTT-S-01726-18
17	MEKA-104	170	Energy N	Argon	Tgi-20	Float	Argon	Tgi-18	Float/6				0,98	0,33	0,10	86	B	VTT-S-01726-18
18	MEKA-105	170	Energy N/6	Argon	Tgi-20	Float	Argon	Tgi-18	Float				0,98	0,33	0,10	86	B	VTT-S-01726-18
19	MEKA-106	170	Energy N/6	Argon	Tgi-18	Float	Argon	Tgi-18	Float/6				0,97	0,33	0,10	85	B	VTT-S-01726-18
20	MEKA-108	170	Suncool 70/35 AC	Argon	Tgi-20	Float	Argon	Tgi-20	Float				0,97	0,28	0,10	93	B	VTT-S-01726-18
21	MEKA-109	170	Suncool 70/35 AC	Argon	Tgi-20	Float	Argon	Tgi-18	Float/6				0,98	0,28	0,10	94	B	VTT-S-01726-18
22	MEKA-110	170	Suncool 70/35 AC/6	Argon	Tgi-20	Float	Argon	Tgi-18	Float				0,98	0,28	0,10	94	B	VTT-S-01726-18
23	MEKA-111	170	Suncool 70/35 AC/6	Argon	Tgi-18	Float	Argon	Tgi-18	Float/6				0,97	0,28	0,10	93	B	VTT-S-01726-18
24	MEKA-112	170	Energy N AF	Argon	Tgi-20	Float	Argon	Tgi-20	Float				0,96	0,31	0,10	86	B	VTT-S-01726-18
25	MEKA-113	170	Energy N AF	Argon	Tgi-20	Float	Argon	Tgi-18	Float/6				0,98	0,31	0,10	89	B	VTT-S-01726-18
26	MEKA-114	170	Energy N AF/6	Argon	Tgi-20	Float	Argon	Tgi-18	Float				0,98	0,31	0,10	89	B	VTT-S-01726-18
27	MEKA-115	170	Energy N AF/6	Argon	Tgi-18	Float	Argon	Tgi-18	Float/6				0,97	0,31	0,10	88	B	VTT-S-01726-18
28	MEKA THERMO-79	170	Optitherm S1N	Argon	Tgi-20	Float	Argon	Tgi-20	Optitherm S1N				0,66	0,41	0,10	28	A++	VTT-S-01726-18
29	MEKA THERMO-80	170	Optitherm S1N	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N/6				0,68	0,41	0,10	31	A++	VTT-S-01726-18
30	MEKA THERMO-81	170	Optitherm S1N/6	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N				0,68	0,39	0,10	34	A++	VTT-S-01726-18
31	MEKA THERMO-82	170	Optitherm S1N/6	Argon	Tgi-18	Float	Argon	Tgi-18	Optitherm S1N/6				0,68	0,39	0,10	34	A++	VTT-S-01726-18
32	MEKA THERMO-83	170	Optiphon/8.8	Argon	Tgi-18	Optitherm S1N	Argon	Tgi-16	Optitherm S1N/6				0,70	0,41	0,10	34	A++	VTT-S-01726-18
33	MEKA THERMO-84	170	Optiphon/10.8	Argon	Tgi-16	Optitherm S1N	Argon	Tgi-16	Optitherm S1N/6				0,73	0,40	0,10	40	A++	VTT-S-01726-18
34	MEKA THERMO-85	170	Optiphon/12.8	Argon	Tgi-14	Optitherm S1N	Argon	Tgi-12	Optiphon Therm S1N/8.8				0,83	0,39	0,10	55	A+	VTT-S-01726-18
35	MEKA THERMO-86	170	Anti-Condensation Glass	Argon	Tgi-20	Optitherm S1N	Argon	Tgi-20	Optitherm S1N				0,66	0,42	0,10	27	A++	VTT-S-01726-18
36	MEKA THERMO-87	170	Anti-Condensation Glass	Argon	Tgi-20	Optitherm S1N	Argon	Tgi-18	Optitherm S1N/6				0,68	0,42	0,10	30	A++	VTT-S-01726-18
37	MEKA THERMO-88	170	Anti-Condensation Glass/6	Argon	Tgi-20	Optitherm S1N	Argon	Tgi-18	Optitherm S1N				0,68	0,40	0,10	33	A++	VTT-S-01726-18
38	MEKA THERMO-89	170	Anti-Condensation Glass/6	Argon	Tgi-18	Optitherm S1N	Argon	Tgi-18	Optitherm S1N/6				0,68	0,40	0,10	33	A++	VTT-S-01726-18
39	MEKA THERMO-90	170	Suncool 70/35	Argon	Tgi-20	Float	Argon	Tgi-20	Optitherm S1N				0,66	0,29	0,10	48	A+	VTT-S-01726-18
40	MEKA THERMO-91	170	Suncool 70/35	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N/6				0,68	0,29	0,10	50	A+	VTT-S-01726-18
41	MEKA THERMO-92	170	Suncool 70/35/6	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N				0,68	0,29	0,10	50	A+	VTT-S-01726-18
42	MEKA THERMO-93	170	Suncool 70/35/6	Argon	Tgi-18	Float	Argon	Tgi-18	Optitherm S1N/6				0,68	0,29	0,10	50	A+	VTT-S-01726-18
43	MEKA THERMO-95	170	Energy N	Argon	Tgi-20	Float	Argon	Tgi-20	Low-e 1.0				0,66	0,31	0,10	44	A++	VTT-S-01726-18
44	MEKA THERMO-96	170	Energy N	Argon	Tgi-20	Float	Argon	Tgi-18	Low-e 1.0/6				0,67	0,31	0,10	46	A+	VTT-S-01726-18

Nro	Tyyppi	Karmi- syvyys mm	1. lasi	Kaasu	Väli- lista	2. lasi	Kaasu	Väli- lista	3. lasi	Kaasu	Väli- lista	4. lasi	U W/m <sup>2</sup> ,K	g	L m <sup>3</sup> /m <sup>2</sup> ,h	E kWh/m <sup>2</sup> , a	Energia- luokka	Raportti
45	MEKA THERMO-97	170	Energy N/6	Argon	Tgi-20	Float	Argon	Tgi-18	Low-e 1.0				0,67	0,30	0,10	47	A+	VTT-S-01726-18
46	MEKA THERMO-98	170	Energy N/6	Argon	Tgi-18	Float	Argon	Tgi-18	Low-e 1.0/6				0,67	0,30	0,10	47	A+	VTT-S-01726-18
47	MEKA THERMO-100	170	Suncool 70/35 AC	Argon	Tgi-20	Float	Argon	Tgi-20	Optitherm S1N				0,66	0,27	0,10	51	A+	VTT-S-01726-18
48	MEKA THERMO-101	170	Suncool 70/35 AC	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N/6				0,67	0,27	0,10	52	A+	VTT-S-01726-18
49	MEKA THERMO-102	170	Suncool 70/35 AC/6	Argon	Tgi-20	Float	Argon	Tgi-18	Optitherm S1N				0,68	0,27	0,10	54	A+	VTT-S-01726-18
50	MEKA THERMO-103	170	Suncool 70/35 AC/6	Argon	Tgi-18	Float	Argon	Tgi-18	Optitherm S1N/6				0,68	0,27	0,10	54	A+	VTT-S-01726-18
51	MEKA THERMO-104	170	Energy N AF	Argon	Tgi-20	Float	Argon	Tgi-20	Low-e 1.0				0,66	0,29	0,10	48	A+	VTT-S-01726-18
52	MEKA THERMO-105	170	Energy N AF	Argon	Tgi-20	Float	Argon	Tgi-18	Low-e 1.0/6				0,67	0,29	0,10	49	A+	VTT-S-01726-18
53	MEKA THERMO-106	170	Energy N AF/6	Argon	Tgi-20	Float	Argon	Tgi-18	Low-e 1.0				0,67	0,29	0,10	49	A+	VTT-S-01726-18
54	MEKA THERMO-107	170	Energy N AF/6	Argon	Tgi-18	Float	Argon	Tgi-18	Low-e 1.0/6				0,67	0,29	0,10	49	A+	VTT-S-01726-18
55	MSEA-85	170	Float	Ilma		Float	Argon	Tgi-16	Optitherm S1N				0,98	0,42	0,30	76	A	VTT-S-01727-18
56	MSEA-86	170	Float	Ilma		Float	Argon	Tgi-18	Optitherm S1N				0,97	0,42	0,30	74	A	VTT-S-01727-18
57	MSEA-87	170	Float	Ilma		Float	Argon	Tgi-16	Optitherm S1N/6				0,97	0,42	0,30	74	A	VTT-S-01727-18
58	MSEA-88	170	Float/6	Ilma		Float	Argon	Tgi-16	Optitherm S1N				0,97	0,40	0,30	77	A	VTT-S-01727-18
59	MSEA-89	170	Float/6	Ilma		Float	Argon	Tgi-18	Optitherm S1N				0,97	0,40	0,30	77	A	VTT-S-01727-18
60	MSEA-90	170	Float/6	Ilma		Float	Argon	Tgi-16	Optitherm S1N/6				0,97	0,40	0,30	77	A	VTT-S-01727-18
61	MSEA-91	170	Anti-Condensation Glass	Ilma		Float	Argon	Tgi-16	Optitherm S1N				0,98	0,40	0,30	79	A	VTT-S-01727-18
62	MSEA-92	170	Anti-Condensation Glass	Ilma		Float	Argon	Tgi-18	Optitherm S1N				0,97	0,40	0,30	77	A	VTT-S-01727-18
63	MSEA-93	170	Anti-Condensation Glass	Ilma		Float	Argon	Tgi-16	Optitherm S1N/6				0,97	0,40	0,30	77	A	VTT-S-01727-18
64	MSEA-94	170	Anti-Condensation Glass/6	Ilma		Float	Argon	Tgi-16	Optitherm S1N				0,97	0,38	0,30	81	A	VTT-S-01727-18
65	MSEA-95	170	Anti-Condensation Glass/6	Ilma		Float	Argon	Tgi-18	Optitherm S1N				0,97	0,38	0,30	81	A	VTT-S-01727-18
66	MSEA-96	170	Anti-Condensation Glass/6	Ilma		Float	Argon	Tgi-16	Optitherm S1N/6				0,97	0,38	0,30	81	A	VTT-S-01727-18
67	MSEA-97	170	Float	Ilma		Suncool 70/35	Argon	Tgi-16	Float				0,98	0,28	0,30	98	B	VTT-S-01727-18
68	MSEA-98	170	Float	Ilma		Suncool 70/35	Argon	Tgi-18	Float				0,97	0,28	0,30	97	B	VTT-S-01727-18
69	MSEA-99	170	Float	Ilma		Suncool 70/35	Argon	Tgi-16	Float/6				0,97	0,28	0,30	97	B	VTT-S-01727-18
70	MSEA-100	170	Float/6	Ilma		Suncool 70/35	Argon	Tgi-16	Float				0,97	0,28	0,30	97	B	VTT-S-01727-18
71	MSEA-101	170	Float/6	Ilma		Suncool 70/35	Argon	Tgi-18	Float				0,97	0,28	0,30	97	B	VTT-S-01727-18
72	MSEA-102	170	Float/6	Ilma		Suncool 70/35	Argon	Tgi-16	Float/6				0,97	0,28	0,30	97	B	VTT-S-01727-18
73	MSEA-103	170	Anti-Condensation Glass	Ilma		Suncool 70/35	Argon	Tgi-16	Float				0,98	0,27	0,30	100	B	VTT-S-01727-18
74	MSEA-104	170	Anti-Condensation Glass	Ilma		Suncool 70/35	Argon	Tgi-18	Float				0,97	0,27	0,30	98	B	VTT-S-01727-18
75	MSEA-105	170	Anti-Condensation Glass	Ilma		Suncool 70/35	Argon	Tgi-16	Float/6				0,97	0,27	0,30	98	B	VTT-S-01727-18
76	MSEA-106	170	Anti-Condensation Glass/6	Ilma		Suncool 70/35	Argon	Tgi-16	Float				0,97	0,27	0,30	98	B	VTT-S-01727-18
77	MSEA-107	170	Anti-Condensation Glass/6	Ilma		Suncool 70/35	Argon	Tgi-18	Float				0,97	0,26	0,30	100	B	VTT-S-01727-18
78	MSEA-108	170	Anti-Condensation Glass/6	Ilma		Suncool 70/35	Argon	Tgi-16	Float/6				0,97	0,27	0,30	98	B	VTT-S-01727-18
79	MSEA THERMO-49	170	Float	Ilma		G-fast	Argon	Tgi-18	Optitherm S1N				0,80	0,41	0,30	52	A+	VTT-S-01727-18
80	MSEA THERMO-50	170	Float	Ilma		G-fast	Argon	Tgi-16	Optitherm S1N/6				0,82	0,41	0,30	55	A+	VTT-S-01727-18
81	MSEA THERMO-51	170	Float/6	Ilma		G-fast	Argon	Tgi-18	Optitherm S1N				0,80	0,38	0,30	57	A+	VTT-S-01727-18
82	MSEA THERMO-52	170	Float/6	Ilma		G-fast	Argon	Tgi-16	Optitherm S1N/6				0,82	0,38	0,30	60	A+	VTT-S-01727-18
83	MSEA THERMO-53	170	Anti-Condensation Glass	Ilma		G-fast	Argon	Tgi-18	Optitherm S1N				0,80	0,38	0,30	57	A+	VTT-S-01727-18
84	MSEA THERMO-54	170	Anti-Condensation Glass	Ilma		G-fast	Argon	Tgi-16	Optitherm S1N/6				0,82	0,38	0,30	60	A+	VTT-S-01727-18
85	MSEA THERMO-55	170	Anti-Condensation Glass/6	Ilma		G-fast	Argon	Tgi-18	Optitherm S1N				0,80	0,37	0,30	58	A+	VTT-S-01727-18
86	MSEA THERMO-56	170	Anti-Condensation Glass/6	Ilma		G-fast	Argon	Tgi-16	Optitherm S1N/6				0,82	0,38	0,30	60	A+	VTT-S-01727-18
87	MSEA THERMO-57	170	G-fast	Ilma		Suncool 70/35	Argon	Tgi-18	Float				0,80	0,28	0,30	73	A	VTT-S-01727-18
88	MSEA THERMO-58	170	G-fast	Ilma		Suncool 70/35	Argon	Tgi-16	Float/6				0,82	0,28	0,30	76	A	VTT-S-01727-18
89	MSEA THERMO-59	170	G-fast/6	Ilma		Suncool 70/35	Argon	Tgi-18	Float				0,80	0,28	0,30	73	A	VTT-S-01727-18
90	MSEA THERMO-60	170	G-fast/6	Ilma		Suncool 70/35	Argon	Tgi-16	Float/6				0,82	0,28	0,30	76	A	VTT-S-01727-18