

# Declaration of Performance

- Reference: FALK GEVEL 1140 KV 1.1 (M/L)
- Metal faced insulation panel for use in buildings.
- Type: FALK GEVEL 1140 KV
- FALK Bouwsystemen B.V.  
Neonstraat 23  
6718 WX Ede  
The Netherlands
- Not relevant
- System 3
- Afiti Licof (no. 1168)
- Not relevant



## 9. Declared values

Thickness:	80	100	120	140	200	225	0	[mm]	Reference standard:	
Mass:	10,9	11,7	12,5	13,2	15,5	16,4	#N/B	[kg/m <sup>2</sup> ]	EN 14509:2013	
Tensile strength:	0,06	0,06	0,06	0,06	0,06	0,06	#N/B	[Mpa]	EN 14509:2013	
Shear strength (core):	0,14	0,11	0,10	0,10	0,09	0,09	#N/B	[Mpa]	EN 14509:2013	
Shear modulus (core):	4,10	4,10	3,83	3,57	2,80	2,80	#N/B	[Mpa]	EN 14509:2013	
Compressive strength (core):	0,12	0,12	0,12	0,12	0,12	0,12	#N/B	[Mpa]	EN 14509:2013	
Long-term shear strength:	0,035	0,04	0,04	0,04	0,04	0,04	#N/B	[Mpa]	EN 14509:2013	
<b>Creep factor:</b>										
t = 2000 h	2,5	2,5	2,5	2,5	2,5	2,5	#N/B	[-]	EN 14509:2013	
t = 100.000 h	4,0	4,0	4,0	4,0	4,0	4,0	#N/B	[-]	EN 14509:2013	
<b>Wrinkling stresses external sheet:</b>										
span:	170	170	170	170	170	170	#N/B	[Mpa]		
span (high temp.):	130	127	124	120	111	111	#N/B	[Mpa]	EN 14509:2013	
central support:	146	146	146	146	146	146	#N/B	[Mpa]		
central support (high temp.):	112	109	106	103	95	95	#N/B	[Mpa]		
<b>Wrinkling stresses internal sheet:</b>										
span:	147	147	147	147	#####	#####	#N/B	[Mpa]	EN 14509:2013	
span (high temp.):	118	118	118	118	#####	#####	#N/B	[Mpa]		
<b>Bending moment (external):</b>										
span:	6,26	7,82	9,38	10,95	15,64	17,60	#N/B	[kNm/m]		
span (high temp.):	4,77	5,82	6,82	7,75	10,21	11,49	#N/B	[kNm/m]	EN 14509:2013	
central support:	5,37	6,72	8,06	9,40	13,43	15,11	#N/B	[kNm/m]		
central support (high temp.):	4,10	5,00	5,85	6,65	8,74	9,83	#N/B	[kNm/m]		
<b>Bending moment (internal):</b>										
span:	4,23	5,29	6,35	7,41	#####	#####	#N/B	[kNm/m]	EN 14509:2013	
span (high temp.):	3,40	4,25	5,10	5,95	#####	#####	#N/B	[kNm/m]		
<b>Thermal conductivity:</b>										
Roof:	0,257	0,210	0,172	0,149	0,105	0,093	#N/B	[W/(m <sup>2</sup> .K)]	EN 14509:2013	
External wall:	0,257	0,210	0,172	0,149	0,105	0,093	#N/B	[W/(m <sup>2</sup> .K)]		
Partition wall:	0,257	0,210	0,172	0,149	0,105	0,093	#N/B	[W/(m <sup>2</sup> .K)]		
<b>Material properties external sheet:</b>										
Steel quality:	S280GD + ZN								EN 10346	
Steel thickness:	min. 0,5 mm									
Coating:	HPS200 ULTRA, PRISMA, Strike 200, Polyester 25mu								EN 10169	
<b>Material properties internal sheet:</b>										
Steel quality:	S280GD + ZN								EN 10346	
Steel thickness:	min. 0,4 mm									
Coating:	Polyester 25mu, FOODSafe, Agricoat, HPS200 ULTRA								EN 10169	
<b>Fire resistance:</b>										
E (integrity):	E60	E60	E120	E120	E120	E120	#N/B	[-]		
EI (integrity & Insulation):	[-]	EI30	EI30	EI30	EI30	EI60	#N/B	[-]	EN 13501-2:2016	
EW (integrity & radiation):	EW60	EW60	EW120	EW120	EW120	EW120	#N/B	[-]		
<b>Reaction to fire:</b>										
Reaction to fire:	B-S1-D0								[-]	EN 13501-1:2019
Reaction to fire roof:	[-]								[-]	EN 14509:2013
<b>Other material properties (general):</b>										
Density:	38								[kg/m <sup>3</sup> ]	EN 14509:2013
Water permeability:	NPD								[-]	EN 14509:2013
Air permeability:	n=	1,39	1,39	1,39	1,39	1,39	1,39	#N/B	[-]	EN 14509:2013
	c=	0,01908	0,01908	0,01908	0,01908	0,01908	0,01908	#N/B	[dm <sup>3</sup> /s.m <sup>1</sup> .Pa <sup>n</sup> ]	EN 14509:2013
Water vapour permeability:	NPD								[-]	EN 14509:2013
Airborne sound insulation:	NPD								[-]	EN 14509:2013
Dimensional tolerance:	"Passed"								[-]	EN 14509:2013
Durability:	"Passed"								[-]	EN 14509:2013
Resistance to point loads:	NPD								[-]	EN 14509:2013
Dangerous substances:	NPD								[-]	EN 14509:2013

Signed on behalf and in name of FALK Bouwsystemen B.V.

Wouter Broekman  
Ede, Juni 2023

