

Declaration of Performance

- Reference: FALK DAK 1100 TR3+ 1.1 (T3/L)
- Metal faced insulation panel for use in buildings.
- Type: FALK DAK 1100 TR3+
- FALK Bouwsystemen B.V.
Neonstraat 23
6718 WX Ede
The Netherlands
- Not relevant
- System 3
- Efectis Nederland B.V (no. 1234)
- Not relevant



9. Declared values

Thickness:	40/70	50/80	60/90	80/110	100/130	130/160	150/180	[mm]	Harmonised Technical Specification:
Mass:	9,8	10,1	10,5	11,3	12,0	13,2	13,9	[kg/m ²]	EN 14509:2013
Tensile strength:	0,06	0,06	0,06	0,06	0,06	0,06	0,06	[Mpa]	EN 14509:2013
Shear strength (core):	0,15	0,15	0,15	0,14	0,13	0,10	0,08	[Mpa]	EN 14509:2013
Shear modulus (core):	3,40	3,40	3,40	3,40	3,40	2,98	2,70	[Mpa]	EN 14509:2013
Compressive strength (core):	0,12	0,11	0,1	0,1	0,1	0,1	0,1	[Mpa]	EN 14509:2013
Long-term shear strength:	0,06	0,06	0,06	0,055	0,05	0,038	0,03	[Mpa]	EN 14509:2013
Creep factor:									
t = 2000 h	2,2	2,2	2,2	2,2	2,2	2,2	2,2	[-]	EN 14509:2013
t = 100.000 h	4,0	4,0	4,0	4,0	4,0	4,0	4	[-]	
Wrinkling stresses external sheet:									
span:	207	207	207	207	207	207	207	[Mpa]	
span (high temp.):	207	207	207	207	207	207	207	[Mpa]	EN 14509:2013
central support:	207	207	207	207	207	207	207	[Mpa]	
central support (high temp.):	207	207	207	207	207	207	207	[Mpa]	
Wrinkling stresses internal sheet:									
span:	147	147	147	147	147	147	147	[Mpa]	EN 14509:2013
span (high temp.):	118	118	118	118	118	118	118	[Mpa]	
Bending moment (external):									
span:	3,81	4,76	5,71	7,62	9,52	12,38	14,28	[kNm/m]	
span (high temp.):	3,81	4,76	5,71	7,62	9,52	12,38	14,28	[kNm/m]	EN 14509:2013
central support:	3,81	4,76	5,71	7,62	9,52	12,38	14,28	[kNm/m]	
central support (high temp.):	3,81	4,76	5,71	7,62	9,52	12,38	14,28	[kNm/m]	
Bending moment (internal):									
span:	2,12	2,65	3,18	4,23	5,29	6,88	7,94	[kNm/m]	EN 14509:2013
span (high temp.):	1,70	2,12	2,55	3,40	4,25	5,52	6,37	[kNm/m]	
Thermal conductivity:									
Roof:	0,452	0,376	0,319	0,247	0,202	0,158	0,139	[W/(m ² .K)]	
External wall:	0,446	0,372	0,316	0,245	0,200	0,158	0,138	[W/(m ² .K)]	EN 14509:2013
Partition wall:	0,429	0,360	0,308	0,240	0,197	0,156	0,136	[W/(m ² .K)]	
Material properties external sheet:									
Steel quality:	S280GD + ZN								EN 10346
Steel thickness:	min. 0,5 mm								
Coating:	HPS200 ULTRA, PRISMA, Strike 200, Polyester 25mu								EN 10169
Material properties internal sheet:									
Steel quality:	S280GD + ZN								EN 10346
Steel thickness:	min. 0,4 mm								
Coating:	Polyester 25mu, FOODSafe, Agricoat, HPS200 ULTRA								EN 10169
Fire resistance:									
E (integrity):	[-]	[-]	[-]	[-]	[-]	[-]	[-]	[-]	
EI (integrity & Insulation):	[-]	[-]	[-]	[-]	[-]	[-]	[-]	[-]	EN 13501-2:2007
EW (integrity & radiation):	[-]	[-]	[-]	[-]	[-]	[-]	[-]	[-]	
Reaction to fire:									
Reaction to fire:	B-S2-D0							[-]	EN 13501-1:2007
Other material properties (general):									
Density:	38							[kg/m ³]	EN 14509:2013
Water permeability:	NPD							[-]	EN 14509:2013
Air permeability:	n=	1,4	1,4	1,4	1,4	2,25	2,25	2,25	[-]
	c=	0,00095	0,00095	0,00095	0,00095	0,00034	0,00034	0,00034	[dm ³ /s.m ¹ .Pa ¹]
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.

Tijmen Visser
Ede, januari 2021

