

Declaration of Performance

1 Unique identification code of the product type:	Trapezoidal - Quadcore KS1000/2000 RW 09.12.16
2 Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:	Insulated sandwich panel for walls and roofs
3 Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article:	See product label and marking on panel
4 Name registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):	Kingspan Limited, Greenfield Business Park No 2, Holywell, Flintshire, CH8 7GJ, UK
5 Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):	Not relevant
6 System of systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:	System 3
7 In case of the declaration of performance concerning a construction product covered by a harmonised standard:	EN 14509
8 In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:	Not relevant



9 Declared performance for Trapezoidal - Quadcore KS1000/2000 RW 09.12.16

Thickness in mm	40	50	53	60	70	73	80	91	100	115	120	137	150	Harmonised Technical Specification
Thermal transmittance (W/m²K)	0.46	0.37	0.35	0.30	0.26	0.25	0.23	0.20	0.18	0.16	0.15	0.13	0.12	EN 14509
Mass (kg/m²)	9.4	9.8	9.9	10.2	10.6	10.7	11.0	11.4	11.7	12.3	12.5	13.1	13.6	EN 14509
* Wrinkling Stress (MPa)														
External span	320	320	320	320	320	320	320	320	320	320	320	320	320	EN 14509
External central support	295	298	298	280	273	273	266	253	239	242	238	226	217	
Internal span	142	140	140	138	136	136	134	133	131	128	127	124	122	
Internal central support	100	99	99	99	99	99	98	98	98	97	97	96	96	
* Bending moments (kNm/m)														
Positive span	2.22	2.72	2.72	3.24	4.92	4.92	5.72	6.55	7.37	8.64	9.07	11.11	12.32	EN 14509
Negative span	2.54	2.87	2.87	3.20	3.35	3.35	3.68	4.01	4.34	4.80	4.94	5.42	5.79	
Positive central support	1.79	2.03	2.03	2.30	2.44	2.44	2.69	2.97	3.25	3.63	3.77	4.19	4.56	
Negative central support	2.05	2.53	2.53	2.84	4.20	4.20	4.75	5.13	5.51	6.54	6.75	7.84	8.35	
Fire behaviour														
E (Integrity)														EN 13501-2
EI (Thermal Insulation)	NPD													
EW (Heat Radiation)														
Reaction to fire	B-s1,d0													EN 13501-1
External Fire Performance	Broof													CEN/TS 1187
Material properties - All thicknesses														
External steel gauge	Min 0.465mm													EN 10346
Internal Steel gauge	Min 0.32mm													
External coatings	Kingspan XL Forté, Tata HPS200													EN 10169
	Kingspan Spectrum, Tata Prisma													
Internal coating	Kingspan CLEANsafe, Kingspan AQUAsafe													EN 10346
External and Internal steel grade	S220+ZA													
Density (Kg/m ³)	35 - 42													EN 14509
Tensile strength (MPa)	≥0.06													
Compressive strength (MPa)	≥0.115													
Shear strength (MPa)	≥0.085													
Shear modulus (MPa)	≥2.80													
* Creep coefficient t = 2000hrs	1.46													
* Creep coefficient t = 10000hrs	1.99													
Water permeability	Class A													
Air permeability (m ³ /h/m ² @ 50pa)	<5													
Water vapour permeability	Impermeable													

* Wrinkling stress, bending moment and creep values are for EcoSafe PIR.

10 The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9

This declaration of performance is issued under the sole responsibility of Kingspan Limited.

Signed on behalf of Kingspan Insulated Panels by:



Position: R&D Engineer

Place and date:

Kingscourt, 09/12/2016