



DECLARATION OF PERFORMANCE No. 53/MW/OBO

1. Unique identification code of product type:

Sandwich panel SPB WEE, SPB WEEB, SPB WEE ENERGY, SPB WEEB ENERGY with mineral wool core

SPB160WEE	SPB160WEE ENERGY
SPB170WEE	SPB170WEE ENERGY
SPB180WEE	SPB180WEE ENERGY
SPB200WEE	SPB200WEE ENERGY
SPB230WEE	SPB230WEE ENERGY
SPB160WEEB	SPB160WEEB ENERGY
SPB170WEEB	SPB170WEEB ENERGY
SPB180WEEB	SPB180WEEB ENERGY
SPB200WEEB	SPB200WEEB ENERGY
SPB230WEEB	SPB230WEEB ENERGY

Sandwich panel SPB WE, SPB WEB, SPB WE ENERGY, SPB WEB ENERGY, SPB WEI, SPB WEIB, SP2D WE, SP2D WE ENERGY with mineral wool core

SPB80WE	SPB80WE ENERGY	SPB80WEI	SP2D100WE
SPB100WE	SPB100WE ENERGY	SPB100WEI	SP2D120WE
SPB120WE	SPB120WE ENERGY	SPB120WEI	SP2D140WE
SPB140WE	SPB140WE ENERGY	SPB140WEI	SP2D150WE
SPB150WE	SPB150WE ENERGY	SPB150WEI	SP2D160WE
SPB160WE	SPB160WE ENERGY	SPB160WEI	SP2D170WE
SPB170WE	SPB170WE ENERGY	SPB170WEI	SP2D180WE
SPB180WE	SPB180WE ENERGY	SPB180WEI	SP2D200WE
SPB200WE	SPB200WE ENERGY	SPB80WEIB	SP2D230WE
SPB230WE	SPB230WE ENERGY	SPB100WEIB	SP2D100WE ENERGY
SPB80WEB	SPB80WEB ENERGY	SPB120WEIB	SP2D120WE ENERGY
SPB100WEB	SPB100WEB ENERGY	SPB140WEIB	SP2D140WE ENERGY
SPB120WEB	SPB120WEB ENERGY	SPB150WEIB	SP2D150WE ENERGY
SPB140WEB	SPB140WEB ENERGY	SPB160WEIB	SP2D160WE ENERGY
SPB150WEB	SPB150WEB ENERGY	SPB170WEIB	SP2D170WE ENERGY
SPB160WEB	SPB160WEB ENERGY	SPB180WEIB	SP2D180WE ENERGY
SPB170WEB	SPB170WEB ENERGY		SP2D200WE ENERGY
SPB180WEB	SPB180WEB ENERGY		SP2D230WE ENERGY
SPB200WEB	SPB200WEB ENERGY		
SPB230WEB	SPB230WEB ENERGY		

Sandwich panel SPB WEF, SPB WEFB, SPB WEF ENERGY, SPB WEFB ENERGY, SPB WEFI, SPB WEFIB with mineral wool core

SPB150WEF	SPB150WEF ENERGY	SPB150WEFI
SPB160WEF	SPB160WEF ENERGY	SPB160WEFI
SPB170WEF	SPB170WEF ENERGY	SPB170WEFI
SPB180WEF	SPB180WEF ENERGY	SPB180WEFI
SPB200WEF	SPB200WEF ENERGY	SPB150WEFIB
SPB230WEF	SPB230WEF ENERGY	SPB160WEFIB
SPB150WEFB	SPB150WEFB ENERGY	SPB170WEFIB
SPB160WEFB	SPB160WEFB ENERGY	SPB180WEFIB
SPB170WEFB	SPB170WEFB ENERGY	
SPB180WEFB	SPB180WEFB ENERGY	
SPB200WEFB	SPB200WEFB ENERGY	
SPB230WEFB	SPB230WEFB ENERGY	

2. Intended use: Self-supporting metal faced insulating panels for use in buildings; external walls, internal walls and ceilings.

Detailed intended use refers to the sandwich panel type – information in attachments to this declaration.
3. Manufacturer: Ruukki Polska Sp. z o.o.
ul. Jaktorowska 13, 96-300 Żyrardów, Poland
Oborniki branch
ul. Łukowska 7, 64-600 Oborniki, Poland
4. Authorized representative: not applicable
5. AVCP level: reaction to fire, fire resistance: 3; other properties: 4
- 6a. Harmonised standard: EN 14509:2013 “Self-supporting double skin metal faced insulating panels. Factory made products. Specifications”
- Notified body: Instytut Techniki Budowlanej (ITB) (1488)
FIRES S.R.O. (1396)
7. Declared performances: Technical product characteristics of specified product configuration are available in attachments to this Declaration of Performance.

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

This Declaration of Performance is available on Ruukki web page:
<http://www.ruukki.com/b2b/support/certificates-and-declarations/sandwich-panel-certificates-and-approvals>

Signed for and on behalf of the manufacturer by:



Adam Korol
Senior Vice President
Building Components

Helsinki, 22.10.2019

Declared technical characteristics of specified type of sandwich panels are available on the following pages:

ENERGY PANELS:

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SP2D WE Energy	Page 7

OTHER PANELS:

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SPB WEFI / SPB WEFIB	Page 12
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Attachment 1 to Declaration of Performance 53/MW/OBO

Panel type	SPB WEE ENERGY, SPB WEEB ENERGY						
Reference to harmonized standard:	EN 14509:2013						
Year when CE mark was affixed:	15						
Intended use:	Internal or external walls						
Panel thickness:	160	170	180	200	230	Reference	
Thickness of external facing:	0,50 - 0,70					mm	(EN 10143)
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120						(EN 10346)
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²						(EN 10169)
External facing profile (module 1100 mm):	L, M, R275, R550, F						
External facing profile (module 1000 mm):	L, M, R28, R250, R500, F						
Thickness of internal facing:	0,50 - 0,60					mm	(EN 10143)
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100 S280GD+ZM140, S280GD+ZM120, S280GD+ZM100						(EN 10346)
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²						(EN 10169)
Internal facing profile:	L, F						
Core material:	MW						
Density of core material:	70					kg/m ³	
Mass (module 1100 mm):	21,6	22,3	23,0	24,4	26,5	kg/m ²	
Mass (module 1000 mm):	21,7	22,4	23,1	24,5	26,6	kg/m ²	
Mechanical resistance:							
Tensile strength:	0,055	0,055	0,055	0,055	0,055	MPa	
Shear strength:	0,035	0,035	0,035	0,035	0,035	MPa	
Reduced long term shear strength:	0,014	0,014	0,014	0,014	0,014	MPa	
Shear modulus (core):	1,05	1,05	1,05	1,05	1,05	MPa	
Compressive strength (core):	0,04	0,04	0,04	0,04	0,04	MPa	
Creep coefficient t=2000h:	-	-	-	-	-		
Creep coefficient t=100000h:	-	-	-	-	-		
Wrinkling strength (external face):							
- in span	75	75	75	75	75	MPa	
- in span, elevated temperature	65	65	65	65	65	MPa	
- at central support	-	-	-	-	-	MPa	
- at central support, elevated temperature	-	-	-	-	-	MPa	
Wrinkling strength (internal face):							
- in span	75	75	75	75	75	MPa	
- at internal support	-	-	-	-	-	MPa	
Other properties:							
Thermal transmittance, U _{d,s} :	0,23	0,22	0,21	0,19	0,16	W/m ² K	
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,038					W/mK	
Reaction to fire:	A2-s1, d0					Class	(EN 13501-1)
Fire resistance:	EI 60					Class	(EN 13501-2)
External fire performance:	Not applicable						
Water permeability:	A					Class	(EN 12865)
Air permeability:	\leq 1,5					m ³ /m ² h	(EN 12114)
Water vapour permeability:	Impermeable						
Airborne sound insulation, R _w (C; C _{tr}):	29 (-4; -6)					dB	(EN ISO 717-1)
Sound absorption, α_w :	0,1						(EN ISO 11654)
Durability:	Pass - all colours						

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 2 to Declaration of Performance 53/MW/OBO

SPB WE ENERGY, SPB WEB ENERGY													
Reference to harmonized standard:	EN 14509:2013												
Year when CE mark was affixed:	15												
Intended use:	Internal or external walls, ceilings												
Panel thickness:	80	100	120	140	150	160	170	180	200	230	Reference		
Thickness of external facing:	0,50 - 0,70											mm (EN 10143)	
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120												
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²												
External facing profile (module 1100 mm):	L, M, R275, R550, F												
External facing profile (module 1000 mm):	L, M, R28, R250, R500, F												
Thickness of internal facing:	0,50 - 0,60											mm (EN 10143)	
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100, S280GD+ZM140, S280GD+ZM120, S280GD+ZM100												
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²												
Internal facing profile:	L, F												
Core material:	MW												
Density of core material:	85											kg/m ³	
Mass (module 1100 mm):	20,0	19,4	21,2	23,0	23,9	24,8	25,7	26,6	28,4	31,1	kg/m ²		
Mass (module 1000 mm):	20,1	19,5	21,3	23,1	24,0	24,9	25,8	26,7	28,5	31,2	kg/m ²		
Mechanical resistance:													
Tensile strength:	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,07	0,07	MPa		
Shear strength:	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,055	0,055	MPa		
Reduced long term shear strength:	0,035	0,035	0,035	0,035	0,035	0,035	0,03	0,03	0,028	0,028	MPa		
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	MPa		
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	MPa		
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37			
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45			
Wrinkling strength (external face):													
- in span	110	110	110	110	110	110	110	110	110	110	MPa		
- in span, elevated temperature	104	104	104	104	104	104	104	104	104	104	MPa		
- at central support	85	85	85	85	85	85	85	85	85	85	MPa		
- at central support, elevated temperature	76	76	76	76	76	76	76	76	76	76	MPa		
Wrinkling strength (internal face):													
- in span	110	110	110	110	110	110	110	110	110	110	MPa		
- at internal support	63	63	63	63	63	63	63	63	63	63	MPa		
Other properties:													
Thermal transmittance, U _{g,s} :	0,54	0,38	0,32	0,28	0,26	0,24	0,23	0,22	0,20	0,17	W/m ² K		
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,043	0,040										W/mK	
Reaction to fire:	A2-s1, d0											Class (EN 13501-1)	
Fire resistance (wall):	NPD	EI 30	EI 60								Class (EN 13501-2)		
Fire resistance (ceiling):	NPD												
External fire performance:	Not applicable												
Water permeability:	A											Class (EN 12865)	
Air permeability:	\leq 1,5												m ³ /m ² h (EN 12114)
Water vapour permeability:	Impermeable												
Airborne sound insulation, R _w (C; C _v):	29 (-2; -3)	29 (-2; -4)										dB (EN ISO 717-1)	
Sound absorption, α_w :	0,1												(EN ISO 11654)
Durability:	Pass - all colours												

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 3 to Declaration of Performance 53/MW/OBO

Panel type	SPB WEF ENERGY, SPB WEFB ENERGY							
Reference to harmonized standard:	EN 14509:2013							
Year when CE mark was affixed:	17							
Intended use:	Internal or external walls, ceilings							
Panel thickness:	150	160	170	180	200	230	Reference	
Thickness of external facing:	0,50 - 0,70						mm	(EN 10143)
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120							(EN 10346)
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²							(EN 10169)
External facing profile (module 1100 mm):	L, M, R275, R550, F							
External facing profile (module 1000 mm):	L, M, R28, R250, R500, F							
Thickness of internal facing:	0,50 - 0,60						mm	(EN 10143)
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100 S280GD+ZM140, S280GD+ZM120, S280GD+ZM100							(EN 10346)
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²							(EN 10169)
Internal facing profile:	L, F							
Core material:	MW							
Density of core material:	90						kg/m ³	
Mass (module 1100 mm):	23,9	24,8	25,7	26,6	28,4	31,1	kg/m ²	
Mass (module 1000 mm):	24,0	24,9	25,8	26,7	28,5	31,2	kg/m ²	
Mechanical resistance:								
Tensile strength:	0,08	0,08	0,08	0,08	0,07	0,07	MPa	
Shear strength:	0,06	0,06	0,06	0,06	0,055	0,055	MPa	
Reduced long term shear strength:	0,03	0,03	0,03	0,03	0,028	0,028	MPa	
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	MPa	
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	MPa	
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37		
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	0,45	0,45		
Wrinkling strength (external face):								
- in span	110	110	110	110	110	110	MPa	
- in span, elevated temperature	104	104	104	104	104	104	MPa	
- at central support	85	85	85	85	85	85	MPa	
- at central support, elevated temperature	76	76	76	76	76	76	MPa	
Wrinkling strength (internal face):								
- in span	110	110	110	110	110	110	MPa	
- at internal support	63	63	63	63	63	63	MPa	
Other properties:								
Thermal transmittance, U _{d,s} :	0,26	0,24	0,23	0,22	0,20	0,17	W/m ² K	
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,040						W/mK	
Reaction to fire:	A2-s1, d0						Class	(EN 13501-1)
Fire resistance (wall):	EI 120						Class	(EN 13501-2)
Fire resistance (ceiling):	EI 120						NPD	Class
External fire performance:	Not applicable							
Water permeability:	A						Class	(EN 12865)
Air permeability:	\leq 1,5						m ³ /m ² h	(EN 12114)
Water vapour permeability:	Impermeable							
Airborne sound insulation, R _w (C; C _{tr}):	29 (-2; -4)						dB	(EN ISO 717-1)
Sound absorption, α_w :	0,1							(EN ISO 11654)
Durability:	Pass - all colours							

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 4 to Declaration of Performance 53/MW/OBO

Panel type	SP2D WE ENERGY										
Reference to harmonized standard:	EN 14509:2013										
Year when CE mark was affixed:	15										
Intended use:	Internal or external walls										
Panel thickness:	100	120	140	150	160	170	180	200	230	Reference	
Thickness of external facing:	0,50 - 0,70									mm (EN 10143)	
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120										
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²										
External facing profile:	L, M, R28, R275, R550										
Thickness of internal facing:	0,50 - 0,60									mm (EN 10143)	
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100, S280GD+ZM140, S280GD+ZM120, S280GD+ZM100										
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²										
Internal facing profile:	L, F										
Core material:	MW										
Density of core material:	85									kg/m ³	
Mass:	20,0	21,8	23,6	24,5	25,4	26,3	27,2	29,0	31,7	kg/m ²	
Mechanical resistance:											
Tensile strength:	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	MPa	
Shear strength:	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,055	0,055	MPa	
Reduced long term shear strength:	0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,028	0,028	MPa	
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	MPa	
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	MPa	
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37		
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45		
Wrinkling strength (external face):											
- in span	110	110	110	110	110	110	110	110	110	MPa	
- in span, elevated temperature	104	104	104	104	104	104	104	104	104	MPa	
- at central support	85	85	85	85	85	85	85	85	85	MPa	
- at central support, elevated temperature	76	76	76	76	76	76	76	76	76	MPa	
Wrinkling strength (internal face):											
- in span	110	110	110	110	110	110	110	110	110	MPa	
- at internal support	63	63	63	63	63	63	63	63	63	MPa	
Other properties:											
Thermal transmittance, U _{ds} :	0,39	0,32	0,28	0,27	0,24	0,23	0,22	0,20	0,17	W/m ² K	
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,040									W/mK	
Reaction to fire:	A2-s1, d0									Class (EN 13501-1)	
Fire resistance:	EI 30 / EI 30	EI 60 / EI 60	EI60 /EI90	EI 60 / EI 120						Class (EN 13501-2)	
External fire performance:	Not applicable										
Water permeability:	A									Class (EN 12865)	
Air permeability:	\leq 1,5									m ³ /m ² h (EN 12114)	
Water vapour permeability:	Impermeable										
Airborne sound insulation, R _w (C; C _w):	30 (-1; -2)	29 (-2; -4)								dB (EN ISO 717-1)	
Sound absorption, α_w :	0,1										(EN ISO 11654)
Durability:	Pass - all colours										

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 5 to Declaration of Performance 53/MW/OBO

Panel type	SPB WEE, SPB WEEB							
Reference to harmonized standard:	EN 14509:2013							
Year when CE mark was affixed:	15							
Intended use:	Internal or external walls							
Panel thickness:	160	170	180	200	230	Reference		
Thickness of external facing:	0,50 - 0,70					mm	(EN 10143)	
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120						(EN 10346)	
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²						(EN 10169)	
External facing profile (module 1100 mm):	L, M, R275, R550, F							
External facing profile (module 1000 mm):	L, M, R28, R250, R500, F							
Thickness of internal facing:	0,50 - 0,60					mm	(EN 10143)	
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100 S280GD+ZM140, S280GD+ZM120, S280GD+ZM100						(EN 10346)	
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²						(EN 10169)	
Internal facing profile:	L, F							
Core material:	MW							
Density of core material:	70					kg/m ³		
Mass (module 1100 mm):	21,6	22,3	23,0	24,4	26,5	kg/m ²		
Mass (module 1000 mm):	21,7	22,4	23,1	24,5	26,6	kg/m ²		
Mechanical resistance:								
Tensile strength:	0,055	0,055	0,055	0,055	0,055	MPa		
Shear strength:	0,035	0,035	0,035	0,035	0,035	MPa		
Reduced long term shear strength:	0,014	0,014	0,014	0,014	0,014	MPa		
Shear modulus (core):	1,05	1,05	1,05	1,05	1,05	MPa		
Compressive strength (core):	0,04	0,04	0,04	0,04	0,04	MPa		
Creep coefficient t=2000h:	-	-	-	-	-			
Creep coefficient t=100000h:	-	-	-	-	-			
Wrinkling strength (external face):								
- in span	75	75	75	75	75	MPa		
- in span, elevated temperature	65	65	65	65	65	MPa		
- at central support	-	-	-	-	-	MPa		
- at central support, elevated temperature	-	-	-	-	-	MPa		
Wrinkling strength (internal face):								
- in span	75	75	75	75	75	MPa		
- at internal support	-	-	-	-	-	MPa		
Other properties:								
Thermal transmittance, U _{d,s} :	0,23	0,22	0,21	0,19	0,16	W/m ² K		
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,038					W/mK		
Reaction to fire:	A2-s1, d0					Class	(EN 13501-1)	
Fire resistance:	EI 60					Class	(EN 13501-2)	
External fire performance:	Not applicable							
Water permeability:	A					Class	(EN 12865)	
Air permeability:	\leq 1,5					m ³ /m ² h	(EN 12114)	
Water vapour permeability:	Impermeable							
Airborne sound insulation, R _w (C; C _t):	29 (-4; -6)					dB	(EN ISO 717-1)	
Sound absorption, α_w :	0,1						(EN ISO 11654)	
Durability:	Pass - all colours							

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 6 to Declaration of Performance 53/MW/OBO

Panel type	SPB WE, SPB WEB											
Reference to harmonized standard:	EN 14509:2013											
Year when CE mark was affixed:	15											
Intended use:	Internal or external walls, ceilings											
Panel thickness:	80	100	120	140	150	160	170	180	200	230	Reference	
Thickness of external facing:	0,50 - 0,70										mm	(EN 10143)
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120											
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²											
External facing profile (module 1100 mm):	L, M, R275, R550, F											
External facing profile (module 1000 mm):	L, M, R28, R250, R500, F											
Thickness of internal facing:	0,50 - 0,60										mm	(EN 10143)
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100, S280GD+ZM140, S280GD+ZM120, S280GD+ZM100											
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²											
Internal facing profile:	L, F											
Core material:	MW											
Density of core material:	85										kg/m ³	
Mass (module 1100 mm):	20,0	19,4	21,2	23,0	23,9	24,8	25,7	26,6	28,4	31,1	kg/m ²	
Mass (module 1000 mm):	20,1	19,5	21,3	23,1	24,0	24,9	25,8	26,7	28,5	31,2	kg/m ²	
Mechanical resistance:												
Tensile strength:	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,07	0,07	MPa	
Shear strength:	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,055	0,055	MPa	
Reduced long term shear strength:	0,035	0,035	0,035	0,035	0,035	0,035	0,03	0,03	0,028	0,028	MPa	
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	MPa	
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	MPa	
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37		
Creep coefficient t=10000h:	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45		
Wrinkling strength (external face):												
- in span	110	110	110	110	110	110	110	110	110	110	MPa	
- in span, elevated temperature	104	104	104	104	104	104	104	104	104	104	MPa	
- at central support	85	85	85	85	85	85	85	85	85	85	MPa	
- at central support, elevated temperature	76	76	76	76	76	76	76	76	76	76	MPa	
Wrinkling strength (internal face):												
- in span	110	110	110	110	110	110	110	110	110	110	MPa	
- at internal support	63	63	63	63	63	63	63	63	63	63	MPa	
Other properties:												
Thermal transmittance, U _{ds} :	0,54	0,38	0,32	0,28	0,26	0,24	0,23	0,22	0,20	0,17	W/m ² K	
Thermal conductivity of the core, $\lambda_{\text{declared}}$:	0,043	0,040									W/mK	
Reaction to fire:	A2-s1, d0										Class	(EN 13501-1)
Fire resistance (wall):	NPD	EI 30	EI 60							Class		(EN 13501-2)
Fire resistance (ceiling):	NPD											
External fire performance:	Not applicable											
Water permeability:	A										Class	(EN 12865)
Air permeability:	\leq 1,5										m ³ /m ² h	(EN 12114)
Water vapour permeability:	Impermeable											
Airborne sound insulation, R _w (C; C _{tr}):	29 (-2; -3)		29 (-2; -4)							dB		(EN ISO 717-1)
Sound absorption, α_w :	0,1											(EN ISO 11654)
Durability:	Pass - all colours											

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 7 to Declaration of Performance 53/MW/OBO

Panel type	SPB WEI, SPB WEIB											
Reference to harmonized standard:	EN 14509:2013											
Year when CE mark was affixed:	15											
Intended use:	Internal walls											
Panel thickness:	80	100	120	140	150	160	170	180	Reference			
Thickness of external facing:	0,50									mm	(EN 10143)	
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120										(EN 10346)	
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS ≤ 4,0 MJ/m ²										(EN 10169)	
External facing profile:	L											
Thickness of internal facing:	0,50									mm	(EN 10143)	
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100 S280GD+ZM140, S280GD+ZM120, S280GD+ZM100										(EN 10346)	
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS ≤ 4,0 MJ/m ²										(EN 10169)	
Internal facing profile:	L											
Core material:	MW											
Density of core material:	85									kg/m ³		
Mass (module 1100 mm):	18,3	17,7	19,5	21,3	22,2	23,1	24,0	24,9	kg/m ²			
Mass (module 1000 mm):	18,4	17,8	19,6	21,4	22,3	23,2	24,1	25,0	kg/m ²			
Mechanical resistance:												
Tensile strength:	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	MPa		
Shear strength:	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	MPa		
Reduced long term shear strength:	0,035	0,035	0,035	0,035	0,035	0,035	0,03	0,03	0,03	MPa		
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	MPa		
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	MPa		
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37			
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45			
Wrinkling strength (external face):												
- in span	110	110	110	110	110	110	110	110	110	MPa		
- in span, elevated temperature	104	104	104	104	104	104	104	104	104	MPa		
- at central support	85	85	85	85	85	85	85	85	85	MPa		
- at central support, elevated temperature	76	76	76	76	76	76	76	76	76	MPa		
Wrinkling strength (internal face):												
- in span	110	110	110	110	110	110	110	110	110	MPa		
- at internal support	63	63	63	63	63	63	63	63	63	MPa		
Other properties:												
Thermal transmittance, U _{d,s} :	0,54	0,38	0,32	0,28	0,26	0,24	0,23	0,22	W/m ² K			
Thermal conductivity of the core, λ _{Declared} :	0,043	0,040								W/mK		
Reaction to fire:	A2-s1, d0									Class	(EN 13501-1)	
Fire resistance (wall):	NPD	EI 30	EI 60						Class		(EN 13501-2)	
External fire performance:	Not applicable											
Water permeability:	A									Class	(EN 12865)	
Air permeability:	≤ 1,5									m ³ /m ² h		(EN 12114)
Water vapour permeability:	Impermeable											
Airborne sound insulation, R _w (C; C _{tr}):	29 (-2; -3)	29 (-2; -4)								dB		(EN ISO 717-1)
Sound absorption, α _w :	0,1										(EN ISO 11654)	
Durability:	Pass - all colours											

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 8 to Declaration of Performance 53/MW/OBO

Panel type	SPB WEF, SPB WEFB								
Reference to harmonized standard:	EN 14509:2013								
Year when CE mark was affixed:	17								
Intended use:	Internal or external walls, ceilings								
Panel thickness:	150	160	170	180	200	230	Reference		
Thickness of external facing:	0,50 - 0,70						mm	(EN 10143)	
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120							(EN 10346)	
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²							(EN 10169)	
External facing profile (module 1100 mm):	L, M, R275, R550, F								
External facing profile (module 1000 mm):	L, M, R28, R250, R500, F								
Thickness of internal facing:	0,50 - 0,60						mm	(EN 10143)	
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100 S280GD+ZM140, S280GD+ZM120, S280GD+ZM100							(EN 10346)	
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²							(EN 10169)	
Internal facing profile:	L, F								
Core material:	MW								
Density of core material:	90						kg/m ³		
Mass (module 1100 mm):	23,9	24,8	25,7	26,6	28,4	31,1	kg/m ²		
Mass (module 1000 mm):	24,0	24,9	25,8	26,7	28,5	31,2	kg/m ²		
Mechanical resistance:									
Tensile strength:	0,08	0,08	0,08	0,08	0,07	0,07	MPa		
Shear strength:	0,06	0,06	0,06	0,06	0,055	0,055	MPa		
Reduced long term shear strength:	0,03	0,03	0,03	0,03	0,028	0,028	MPa		
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	MPa		
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	MPa		
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37			
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	0,45	0,45			
Wrinkling strength (external face):									
- in span	110	110	110	110	110	110	MPa		
- in span, elevated temperature	104	104	104	104	104	104	MPa		
- at central support	85	85	85	85	85	85	MPa		
- at central support, elevated temperature	76	76	76	76	76	76	MPa		
Wrinkling strength (internal face):									
- in span	110	110	110	110	110	110	MPa		
- at internal support	63	63	63	63	63	63	MPa		
Other properties:									
Thermal transmittance, U _{d,s} :	0,26	0,24	0,23	0,22	0,20	0,17	W/m ² K		
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,040						W/mK		
Reaction to fire:	A2-s1, d0						Class	(EN 13501-1)	
Fire resistance (wall):	EI 120						Class	(EN 13501-2)	
Fire resistance (ceiling):	EI 120					NPD	Class		
External fire performance:	Not applicable								
Water permeability:	A						Class	(EN 12865)	
Air permeability:	\leq 1,5						m ³ /m ² h	(EN 12114)	
Water vapour permeability:	Impermeable								
Airborne sound insulation, R _w (C; C _{tr}):	29 (-2; -3)					29 (-2; -4)	dB	(EN ISO 717-1)	
Sound absorption, α_w :	0,1							(EN ISO 11654)	
Durability:	Pass - all colours								

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 9 to Declaration of Performance 53/MW/OBO

Panel type	SPB WEFI, SPB WEFIB				
Reference to harmonized standard:	EN 14509:2013				
Year when CE mark was affixed:	17				
Intended use:	Internal walls				
Panel thickness:	150	160	170	180	Reference
Thickness of external facing:	0,50				mm (EN 10143)
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120				(EN 10346)
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS ≤ 4,0 MJ/m ²				(EN 10169)
External facing profile:	L				
Thickness of internal facing:	0,50				mm (EN 10143)
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100 S280GD+ZM140, S280GD+ZM120, S280GD+ZM100				(EN 10346)
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS ≤ 4,0 MJ/m ²				(EN 10169)
Internal facing profile:	L				
Core material:	MW				
Density of core material:	90				kg/m ³
Mass (module 1100 mm):	22,2	23,1	24,0	24,9	kg/m ²
Mass (module 1000 mm):	22,3	23,2	24,1	25,0	kg/m ²
Mechanical resistance:					
Tensile strength:	0,08	0,08	0,08	0,08	MPa
Shear strength:	0,06	0,06	0,06	0,06	MPa
Reduced long term shear strength:	0,03	0,03	0,03	0,03	MPa
Shear modulus (core):	2,5	2,5	2,5	2,5	MPa
Compressive strength (core):	0,06	0,06	0,06	0,06	MPa
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	
Wrinkling strength (external face):					
- in span	110	110	110	110	MPa
- in span, elevated temperature	104	104	104	104	MPa
- at central support	85	85	85	85	MPa
- at central support, elevated temperature	76	76	76	76	MPa
Wrinkling strength (internal face):					
- in span	110	110	110	110	MPa
- at internal support	63	63	63	63	MPa
Other properties:					
Thermal transmittance, U _{d,s} :	0,26	0,24	0,23	0,22	W/m ² K
Thermal conductivity of the core, λ _{Declared} :	0,040				W/mK
Reaction to fire:	A2-s1, d0				Class (EN 13501-1)
Fire resistance (wall):	EI 120				Class (EN 13501-2)
External fire performance:	Not applicable				
Water permeability:	A				Class (EN 12865)
Air permeability:	≤ 1,5				m ³ /m ² h (EN 12114)
Water vapour permeability:	Impermeable				
Airborne sound insulation, R _w (C; C _{tr}):	29 (-2; -3)	29 (-2; -4)			dB (EN ISO 717-1)
Sound absorption, α _w :	0,1				(EN ISO 11654)
Durability:	Pass - all colours				

Detailed product/material specification is given on order confirmation or delivery documentation.

Attachment 10 to Declaration of Performance 53/MW/OBO

Panel type	SP2D WE										
Reference to harmonized standard:	EN 14509:2013										
Year when CE mark was affixed:	15										
Intended use:	Internal or external walls										
Panel thickness:	100	120	140	150	160	170	180	200	230	Reference	
Thickness of external facing:	0,50 - 0,70									mm	(EN 10143)
External facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+ZM140, S280GD+ZM120										(EN 10346)
Coating of external facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²										(EN 10169)
External facing profile:	L, M, R28, R275, R550										
Thickness of internal facing:	0,50 - 0,60									mm	(EN 10143)
Internal facing - steel grade:	S280GD+Z275, S280GD+Z190, S280GD+Z100, S280GD+ZM140, S280GD+ZM120, S280GD+ZM100										(EN 10346)
Coating of internal facing:	Polyester, Hiarc, Hiarc max, PVC, Csafe or other colour coating with PCS \leq 4,0 MJ/m ²										(EN 10169)
Internal facing profile:	L, F										
Core material:	MW										
Density of core material:	85									kg/m ³	
Mass:	20,0	21,8	23,6	24,5	25,4	26,3	27,2	29,0	31,7	kg/m ²	
Mechanical resistance:											
Tensile strength:	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08	MPa	
Shear strength:	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,055	0,055	MPa	
Reduced long term shear strength:	0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,028	0,028	MPa	
Shear modulus (core):	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	MPa	
Compressive strength (core):	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	MPa	
Creep coefficient t=2000h:	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37		
Creep coefficient t=100000h:	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45		
Wrinkling strength (external face):											
- in span	110	110	110	110	110	110	110	110	110	MPa	
- in span, elevated temperature	104	104	104	104	104	104	104	104	104	MPa	
- at central support	85	85	85	85	85	85	85	85	85	MPa	
- at central support, elevated temperature	76	76	76	76	76	76	76	76	76	MPa	
Wrinkling strength (internal face):											
- in span	110	110	110	110	110	110	110	110	110	MPa	
- at internal support	63	63	63	63	63	63	63	63	63	MPa	
Other properties:											
Thermal transmittance, U _{ds} :	0,39	0,32	0,28	0,27	0,24	0,23	0,22	0,20	0,17	W/m ² K	
Thermal conductivity of the core, $\lambda_{\text{Declared}}$:	0,040									W/mK	
Reaction to fire:	A2-s1, d0									Class	(EN 13501-1)
Fire resistance:	EI 30 / EI 30	EI 60 / EI 60	EI 60 / EI 90	EI 60 / EI 120						Class	(EN 13501-2)
External fire performance:	Not applicable										
Water permeability:	A									Class	(EN 12865)
Air permeability:	\leq 1,5									m ³ /m ² h	(EN 12114)
Water vapour permeability:	Impermeable										
Airborne sound insulation, R _w (C; C _w):	30 (-1; -2)	29 (-2; -4)								dB	(EN ISO 717-1)
Sound absorption, α_w :	0,1										(EN ISO 11654)
Durability:	Pass - all colours										

Detailed product/material specification is given on order confirmation or delivery documentation.