Declaration of Performance



R4224IPCPR

1. <u>Unique identification code of the product-type:</u>

S, SK, SKG, DDP N, DDP RT, SmartRoof Top, NaturBoard FIT, NaturBoard FIT-G, FKL Thermal, Smart Roof TOP CTF1, Smart Roof TOP CTF2, Board D3, Board D13, Board D14, Board D15, Board D16, Board D17

2. Intended use or uses:

Thermal Insulation for Buildings (ThIB)

3. Manufacturer:

Knauf Insulation d.o.o.

Industrijsko naselje Belo Polje bb, 17530 Surdulica

Serbia

www.knaufinsulation.com - dop@knaufinsulation.com

4. Authorised representative:

Not applicable

5. System or systems of assessment and verification of constancy of performance:

AVCP System 1 for Reaction to Fire AVCP System 3 for the other characteristics

6a. <u>Harmonized Standard:</u>

EN 13162:2012 + A1:2015

Notified body or bodies:

AVCP System 1: (Notified certification body) 0751 - Forschungsinstitut für Wärmeschutz e. V. München FIW München 1404 - ZAG - ZAVOD ZA GRADBENISTVO SLOVENIJE

AVCP System 3: (Notified testing laboratory) 0751 - Forschungsinstitut für Wärmeschutz e. V. München FIW München --- ---

6b. European Assessment document: not applicable

European Technical Assessment: not applicable

Technical Assessment Body: not applicable

Notified body/ies: not applicable

7. Declared Performances:

See next page

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Essential Characteristics	R4224IP0	CPR	Harmonised technica standard
	Performance	Board D13	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	
Reaction to Fire	Reaction to fire	A1	
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance	NPD{b}	
near, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	_
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	_
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	\dashv
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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Essential Characteristics	R4224IP0	CPR	Harmonised technica standard
	Performance	Board D14	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λD 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	\dashv
Reaction to Fire	Reaction to fire	A1	
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against	Thermal Resistance	NPD{b}	
heat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
-	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	_
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
-	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	_
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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Essential Characteristics	R4224IP0	CPR	Harmonised technica standard
	Performance	Board D15	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λD 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	_
Reaction to Fire	Reaction to fire	A1	
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against	Thermal Resistance	NPD{b}	
heat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
-	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	_
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	_
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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Essential Characteristics	R4224IP0	CPR	Harmonised technica standard
	Performance	Board D16	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	
Reaction to Fire	Reaction to fire	A1	
Durability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance	NPD{b}	
neat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	_
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	\dashv
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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Essential Characteristics	R4224IP0	CPR	Harmonised technica standard
	Performance	Board D17	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	\dashv
Reaction to Fire	Reaction to fire	A1	
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against	Thermal Resistance	NPD{b}	
heat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
-	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	_
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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Essential Characteristics	R4224IP0	CPR	Harmonised technical standard
	Performance	Board D3	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λD 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	
Reaction to Fire	Reaction to fire	A1	
Durability of reaction to fire against heat, weathering, ageing / degradation	Durability Characteristics	NPD {a}	
Durability of thermal resistance against	Thermal Resistance	NPD{b}	
heat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	
floors)	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deteri	minad	

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R4224IPCPR DDP N



South Charles	D	200	
Essential Characteristics	R4224IP0		Harmonised technical standard
	Performance	DDP N	
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 30 40 - 200	
	Thickness tolerance	T5 T5	
Reaction to Fire	Reaction to fire	A1 A1	_
Durability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation	,		
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance	NPD{b}	
neat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive	NPD CS(10)40	
compressive strength	Strength	111 5 65(10) 10	
	Point Load	NPD PL(5)350	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD TR7,5 {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	
floors)	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	_
Acoustic absorptions index	Sound absorption	NPD	_
Direct airborne sound insulation index	Air flow resistivity	NPD	\dashv
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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R4224IPCPR DDP RT



Essential Characteristics	R4224IP0	CPR	Harmonised technical
	Performance	DDP RT	standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	50 - 200	
	Thickness tolerance	T5	_
Reaction to Fire	Reaction to fire	A1	
Durability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance	NPD{b}	
neat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	CS(10)50	
-	Point Load	PL(5)500	
Tensile / Flexural strength	Tensile strength perpendicular faces	TR10 {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for floors)	Dynamic stiffness	NPD	
110013)	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	NPD	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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R4224IPCPR FKL Thermal



Essential Characteristics	R4224IP0	CPR	Harmonised technica standard
	Performance	FKL Thermal	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	40 - 200	
	Thickness tolerance	T5	_
Reaction to Fire	Reaction to fire	A1	
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation			
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance	NPD{b}	
ilear, weathering, agenig / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	CS(10)40	
-	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	TR80 {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	NPD	
	Long term water absorption	NPD	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	NPD	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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R4224IPCPR NaturBoard FIT



Essential Characteristics	R4224IP0	CPR	Harmonised technical
	Performance	NaturBoard FIT	standard
		Watarboara	
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λD 0,038	EN 13162:2012 + A1:2015
	Thermal Resistance	See performance chart	
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	
Reaction to Fire	Reaction to fire	A1	
Durability of reaction to fire against heat, weathering, ageing / degradation	Durability Characteristics	NPD {a}	
Durability of thermal resistance against	Thermal Resistance	NPD{b}	
heat, weathering, ageing / degradation .	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	WS	
	Long term water absorption	WL(P)	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	
floors)	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	-
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	_
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	nined	<u> </u>

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R4224IPCPR NaturBoard FIT-G



Essential Characteristics	R4224IPC	CPR	Harmonised technica standard
	Performance	NaturBoard FIT-G	Standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
	Thickness range (mm)	20 - 200	
	Thickness tolerance	T5	
Reaction to Fire	Reaction to fire	A1	
Durability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation	,		
Durability of thermal resistance against	Thermal Resistance	NPD{b}	
heat, weathering, ageing / degradation .	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
-	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	WS	
	Long term water absorption	WL(P)	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	
floors)	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	\dashv
Acoustic absorptions index	Sound absorption	NPD	
Direct airborne sound insulation index	Air flow resistivity	AF5	_
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deterr		

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R4224IPCPR S



Essential Characteristics	R4224IP	R4224IPCPR	
	Performance	S	standard
	{f}		
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +
	Thermal Resistance	See performance chart	A1:2015
-	Thickness range (mm)	20 - 200	
-	Thickness tolerance	T5	
Reaction to Fire	Reaction to fire	A1	
Durability of reaction to fire against heat,	Durability Characteristics	NPD {a}	
weathering, ageing / degradation	but dominy characteristics	W 5 (c)	
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance	NPD{b}	
neat, weathering, ageing / degradation	Thermal conductivity	NPD	
	Durability characteristics	NPD {c}	
Compressive Strength	Compressive Stress / Compressive Strength	NPD	
	Point Load	NPD	
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}	
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD	
Water Permeability	Short term water absorption	WS	
	Long term water absorption	WL(P)	
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD	
Impact noise transmissions index (for	Dynamic stiffness	NPD	_
floors) -	Thickness	NPD	
	Compressibility	NPD	
	Air flow resistivity	NPD	
Acoustic absorptions index	Sound absorption	NPD	\dashv
Direct airborne sound insulation index	Air flow resistivity	AF5	
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}	
Continuous glowing combustion	Continuous glowing combustion	NPD {e}	
	NPD - No performance deter	mined	

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R4224IPCPR SK



Essential Characteristics	R4224IP0	R4224IPCPR					
	Performance	SK	standard				
	{f}						
Thermal Resistance	Thermal conductivity (W/mK)	λD 0,038	EN 13162:2012 +				
	Thermal Resistance	See performance chart	A1:2015				
	Thickness range (mm)	20 - 200					
	Thickness tolerance	T5					
Reaction to Fire	Reaction to fire	A1					
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}					
weathering, ageing / degradation							
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance						
neat, weathering, ageing / degradation	Thermal conductivity	NPD					
	Durability characteristics	NPD {c}					
Compressive Strength	Compressive Stress / Compressive Strength						
-	Point Load						
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}					
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD					
Water Permeability	Short term water absorption	WS					
	Long term water absorption	WL(P)					
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD					
Impact noise transmissions index (for	Dynamic stiffness	NPD					
floors) -	Thickness	NPD					
	Compressibility	NPD					
	Air flow resistivity	NPD					
Acoustic absorptions index	Sound absorption	NPD					
Direct airborne sound insulation index	Air flow resistivity	AF5					
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}					
Continuous glowing combustion	Continuous glowing combustion	NPD {e}					
	NPD - No performance deter	mined					

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R4224IPCPR SKG



Essential Characteristics	R4224IP0	R4224IPCPR					
	Performance	SKG	standard				
	{f}						
Thermal Resistance	Thermal conductivity (W/mK)	λD 0,038	EN 13162:2012 +				
	Thermal Resistance	See performance chart	A1:2015				
	Thickness range (mm)	20 - 200					
	Thickness tolerance	T5					
Reaction to Fire	Reaction to fire	A1					
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}					
weathering, ageing / degradation							
Durability of thermal resistance against heat, weathering, ageing / degradation	Thermal Resistance						
ileat, weathering, ageing / degradation	Thermal conductivity	NPD					
	Durability characteristics	NPD {c}					
Compressive Strength	Compressive Stress / Compressive Strength						
	Point Load	NPD					
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}					
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD					
Water Permeability	Short term water absorption	WS					
	Long term water absorption	WL(P)					
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD					
Impact noise transmissions index (for	Dynamic stiffness	NPD	_				
floors) -	Thickness	NPD					
	Compressibility	NPD					
	Air flow resistivity	NPD					
Acoustic absorptions index	Sound absorption	NPD					
Direct airborne sound insulation index	Air flow resistivity	AF5					
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}					
Continuous glowing combustion	Continuous glowing combustion	NPD {e}					
	NPD - No performance deter	mined					

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R4224IPCPR Smart Roof TOP CTF1



Essential Characteristics	R4224IP0	Harmonised technica standard			
	Performance	Smart Roof TOP CTF1	Standard		
	{f}				
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 +		
	Thermal Resistance	See performance chart	A1:2015		
	Thickness range (mm)	0 - 200			
	Thickness tolerance	T5			
Reaction to Fire	Reaction to fire	A1			
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}			
weathering, ageing / degradation					
Durability of thermal resistance against	Thermal Resistance	NPD{b}			
heat, weathering, ageing / degradation	Thermal conductivity	NPD			
	Durability characteristics	NPD {c}			
Compressive Strength	Compressive Stress / Compressive Strength				
-	Point Load	NPD			
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}			
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD			
Water Permeability	Short term water absorption	NPD			
	Long term water absorption	WL(P)			
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD			
Impact noise transmissions index (for	Dynamic stiffness	NPD			
floors) -	Thickness	NPD			
	Compressibility	NPD			
	Air flow resistivity	NPD			
Acoustic absorptions index	Sound absorption	NPD			
Direct airborne sound insulation index	Air flow resistivity	NPD			
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}			
Continuous glowing combustion	Continuous glowing combustion	NPD {e}			
	NPD - No performance deter	mined			

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R4224IPCPR Smart Roof TOP CTF2



Essential Characteristics	R4224IP0	Harmonised technica standard				
	Performance	Smart Roof TOP CTF2	Standard			
	{f}					
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 -			
	Thermal Resistance	See performance chart	A1:2015			
	Thickness range (mm)	20 - 120				
	Thickness tolerance	T5				
Reaction to Fire	Reaction to fire	A1				
Ourability of reaction to fire against heat,	Durability Characteristics	NPD {a}				
weathering, ageing / degradation						
Durability of thermal resistance against	Thermal Resistance	NPD{b}				
heat, weathering, ageing / degradation	Thermal conductivity	NPD				
	Durability characteristics	NPD {c}				
Compressive Strength	Compressive Stress / Compressive Strength					
-	Point Load	NPD				
Tensile / Flexural strength	Tensile strength perpendicular faces	NPD {d}				
Durability of compressive Strength	Compressive creep	NPD				
against ageing / degradation						
Water Permeability	Short term water absorption	NPD				
	Long term water absorption	WL(P)				
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD				
Impact noise transmissions index (for floors)	Dynamic stiffness	NPD				
110015)	Thickness	NPD				
	Compressibility	NPD				
	Air flow resistivity	NPD				
Acoustic absorptions index	Sound absorption	NPD				
Direct airborne sound insulation index	Air flow resistivity	NPD				
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}				
Continuous glowing combustion	Continuous glowing combustion	NPD {e}				
	NPD - No performance deter	mined				

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R4224IPCPR SmartRoof Top



Essential Characteristics	R4224IP0	 CPR	Harmonised technical		
	Performance	standard			
		SmartRoof Top			
	{f}				
Thermal Resistance	Thermal conductivity (W/mK)	λο 0,038	EN 13162:2012 + A1:2015		
	Thermal Resistance	See performance chart			
	Thickness range (mm)	40 - 100			
	Thickness tolerance	T5			
Reaction to Fire	Reaction to fire	A1			
Durability of reaction to fire against heat, weathering, ageing / degradation	Durability Characteristics	NPD {a}			
Durability of thermal resistance against	Thermal Resistance	NPD{b}			
heat, weathering, ageing / degradation .	Thermal conductivity	NPD			
	Durability characteristics	NPD {c}			
Compressive Strength	Compressive Stress / Compressive Strength				
	Point Load	PL(5)650			
Tensile / Flexural strength	Tensile strength perpendicular faces	TR10 {d}			
Durability of compressive Strength against ageing / degradation	Compressive creep	NPD			
Water Permeability	Short term water absorption	NPD			
	Long term water absorption	NPD			
Water vapour permeability	Water vapour transmission, water vapour diffusion resistance factor	NPD			
Impact noise transmissions index (for	Dynamic stiffness	NPD			
floors)	Thickness	NPD			
	Compressibility	NPD			
	Air flow resistivity	NPD			
Acoustic absorptions index	Sound absorption	NPD			
Direct airborne sound insulation index	Air flow resistivity	NPD			
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD {e}			
Continuous glowing combustion	Continuous glowing combustion	NPD {e}			
	NPD - No performance deter	mined			

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8. Appropriate Technical Documentation and / or Specific Technical Documentation:

Not applicable

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.

Thermal Resistance Table														
[mm] [m²K/W]	20 0,50	30 0,75	40 1,05	50 1,30	60 1,55	70 1,80	80 2,10	90 2,35	100 2,60	110 2,85	120 3,15	130 3,40	140 3,65	150 3,90
[mm] [m²K/W]	160 4,20	170 4,45	180 4,70	190 5,00	200 5,25						,			,

Signed for an on behalf of the manufacturer by:

Branislav Popović - Plant manager (Name and function)

Surdulica - 11-03-21 (Place and date of issue)

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[{]a} No change in reaction to fire properties for MW Products. The fire performance of MW does not deteriorate with time. The Euroclass classification of the product is related to the organic content, which cannot increase with time.

⁽b) Thermal conductivity of MW products does not change with time, experience has shown the fibre structure to be stable and the porosity contains no other gases than atmospheric air

 $^{\{}c\}$ For dimensional stability thickness only

[{]d} This characteristic also covers handling and installation

[{]e} European test methods are under development

[{]f} Also valid and applicable for multilayers