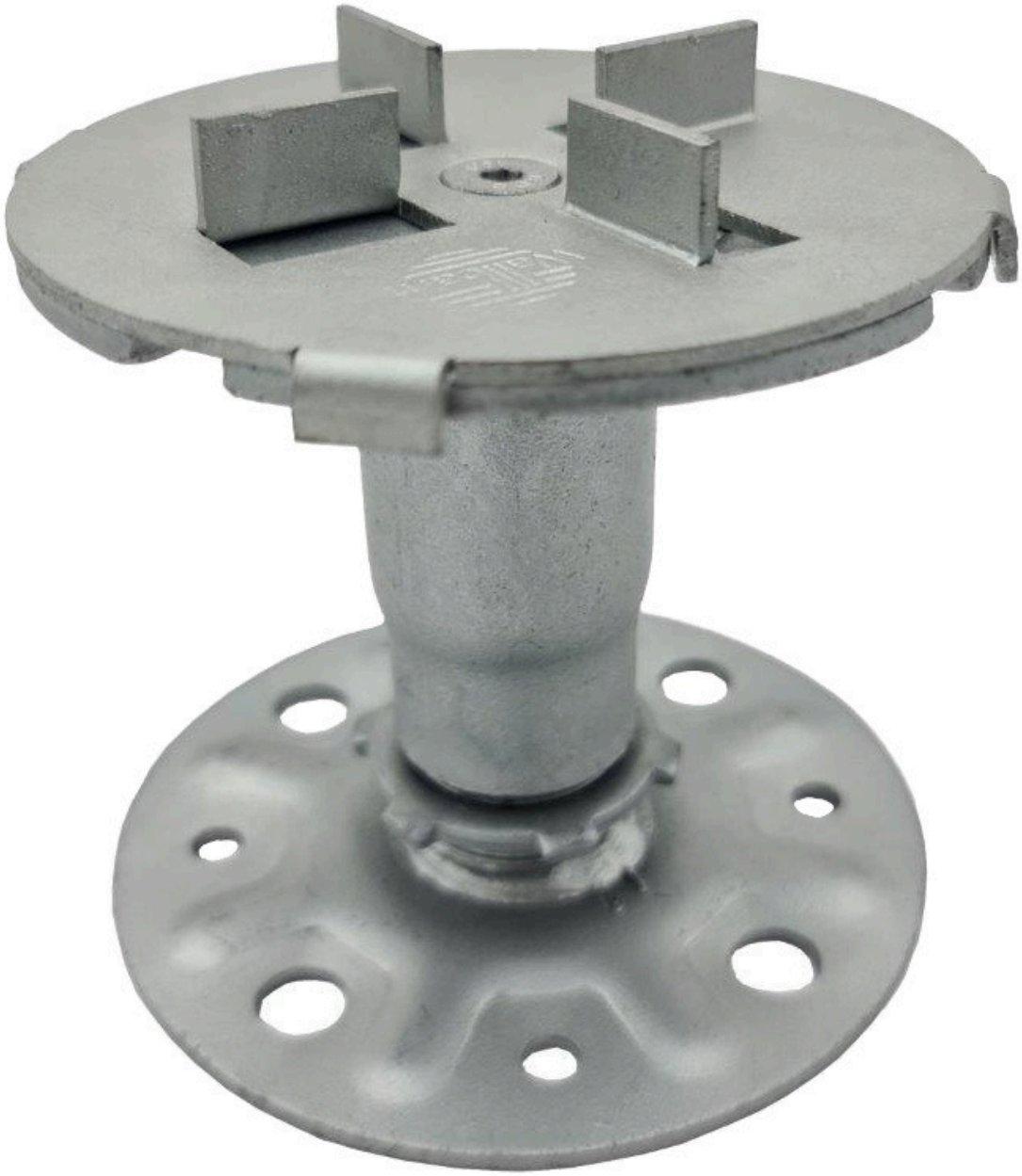
Operations & Maintenance Manual

MetalPad Ex Class A Pedestal



Wallbarn Ltd
Unit 16 Capital Business Centre
22 Carlton Road, South Croydon. CR2 0BS

Phone : 0208 916 2222 Email : sales@wallbarn.com Website : www.wallbarn.com

IMS.T.432.v2

PRODUCT DESCRIPTION

Non-combustible, fully adjustable, Class A pedestal specially designed for suspended decking and paving systems on exterior high-rise balconies, terraces and flat roofs.

The pedestals are covered in Zintec 200 anti corrosion protective coating. This makes the pedestals suitable for external applications and also creates a barrier between the steel and the aluminium.

- There are zero plastic or rubber components ensuring it's Class A rating.
- Rated Class A according to BS EN 13501-1:2018 and EC Decision 94/61 1/EC.
- Independently weight tested by STS UK to 49.86kN (Approximately 5,080Kg) - (Go to Report)
- Independently Fire Tested by Warrington Fire to meet Class A fire rating. (Go to Report).

They are covered in Zintec 200 coating provides a superior finish, which offers outstanding cathodic corrosion protection and staves off white rust formation. Zintec 200 also demonstrates exceptional performance in Neutral Salt Spray Testing (NSST) as well as in Cyclic Corrosion Testing (CCT).- (Go to Technical Documents for Zintec 200).

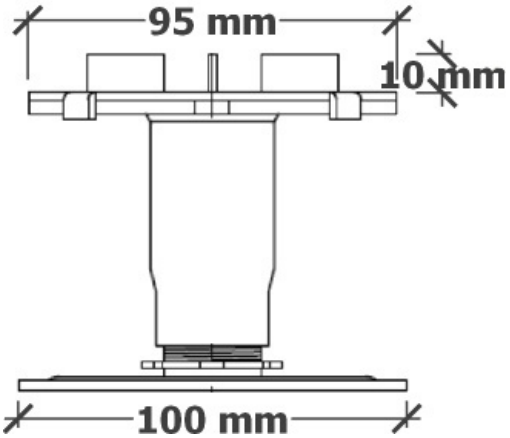
Accurate levelling of the floor surface is possible with millimetre precision by twisting the threaded stem to adjust the height. The height can be adjusted even with the paving slab or rail / decking system in place by simply turning the stem. The headpiece is 95mm diameter and the circular baseplate is 100mm in diameter.

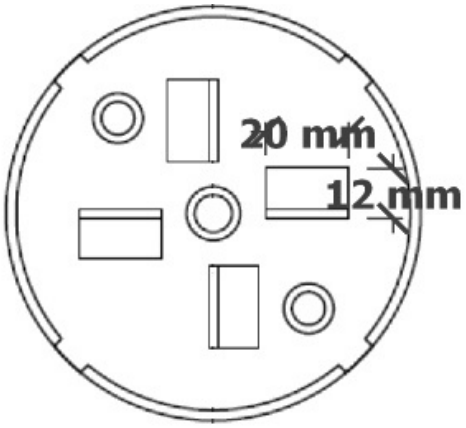
The MetalPad Ex has been designed to work with a number of accessories, headpieces and Wallbarn Aluminium Joists/Rails to create substructure for paving or decking projects that need to meet the latest rules related to Class A specified projects.

PHYSICAL AND CHEMICAL PROPERTIES

MATERIAL	**Mild Steel**	**EN 10152**
PEDESTAL COATING	**Zintec 200 corrosion protection coating**	
THREADED STEM	**Mild Steel Class 4:8**	
FIRE CLASSIFICATION	**Class A - EC Decision 96/603/EC | BS EN 13501-1:2018**	
BUILDING STANDARDS COMPLIANCE	**Approved Document B (amended)**	**2022**
	British Standard (balcony construction)	**BS 8579**
USE/PURPOSE	**Suspended decking and paving projects on Balconies, Terraces, Flat Roof & Podium Decks.**	
WEIGHT TOLERANCE	**49.86kN (Approximately 5,080Kg) per unit**	
WEIGHT TOLERANCE WITH SPREADER PLATE	**70.69kN (Approximately 7,207Kg) per unit**	
DURABILITY	**MetalPad EX is manufactured for long-term performance and resistance to corrosion, exposure to elements and to UV rays**	
WARRANTY	**Limited warranty 15 years**	
	Life span 50 years	
TOXICITY	**These products are not classified as toxic**	
HEADPIECE	**95mm diameter with central hole 6mm diameter 4 x connection slots 10mm x 22mm**	
BASE PLATE	**100mm diameter Circular Base plate 4 x drilled drainage holes 10mm diameter 4 x drilled fixing holes 6mm diameter**	

Paving Headpiece





28-37mm
SP-MET-EX-P-028-Z

32-42mm
SP-MET-EX-P-032-Z

42-52mm
SP-MET-EX-P-042-Z

52-72mm
SP-MET-EX-P-052-Z

62-92mm
SP-MET-EX-P-062-Z

77-117mm
SP-MET-EX-P-077-Z

112-187mm
SP-MET-P-EX-112-Z

187-262mm
SP-MET-EX-P-187-Z

252-327mm
SP-MET-EX-P-252-Z

302-377mm
SP-MET-EX-P-302-Z

(Larger height pedestals above 375mm are available on special order)

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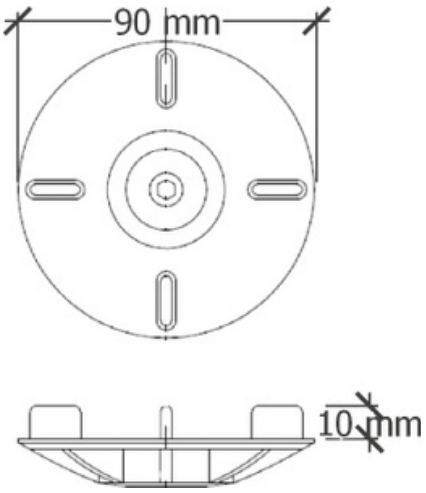
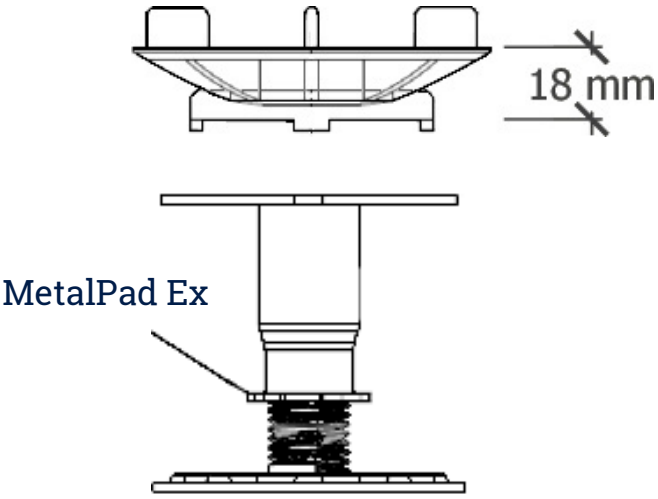
Self Levelling





44-53mm
SP-MET-EX-SL-044-Z

48-58mm
SP-MET-EX-SL-048-Z

58-68mm
SP-MET-EX-SL-058-Z

68-88mm
SP-MET-EX-SL-068-Z

78-108mm
SP-MET-EX-SL-078-Z

93-133mm
SP-MET-EX-SL-093-Z

128-203mm
SP-MET-EX-SL-128-Z

203-278mm
SP-MET-EX-SL-203-Z

268-343mm
SP-MET-EX-SL-268-Z

318-393mm
SP-MET-EX-SL-318-Z

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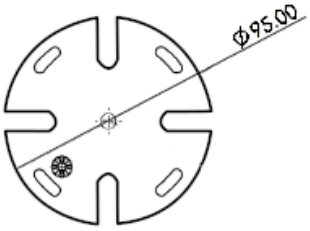
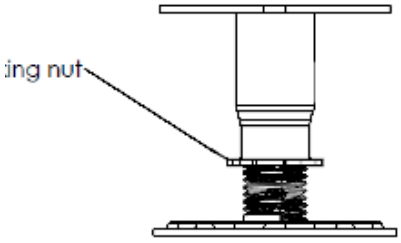
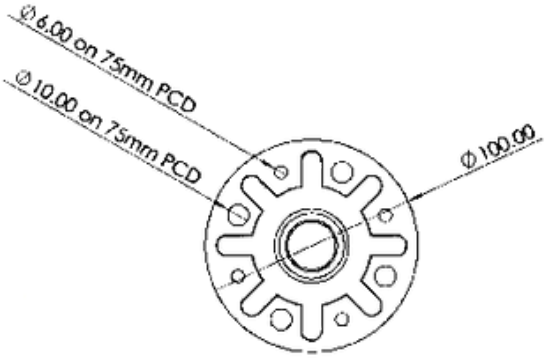
Flat Head







Head **Base**

26-35mm
SP-MET-EX-026-Z

30-40mm
SP-MET-EX-030-Z

40-50mm
SP-MET-EX-040-Z

50-70mm
SP-MET-EX-050-Z

60-90mm
SP-MET-EX-060-Z

75-115mm
SP-MET-EX-075-Z

110-185mm
SP-MET-EX-110-Z

185-260mm
SP-MET-EX-185-Z

250-325mm
SP-MET-EX-250-Z

300-375mm
SP-MET-EX-300-Z

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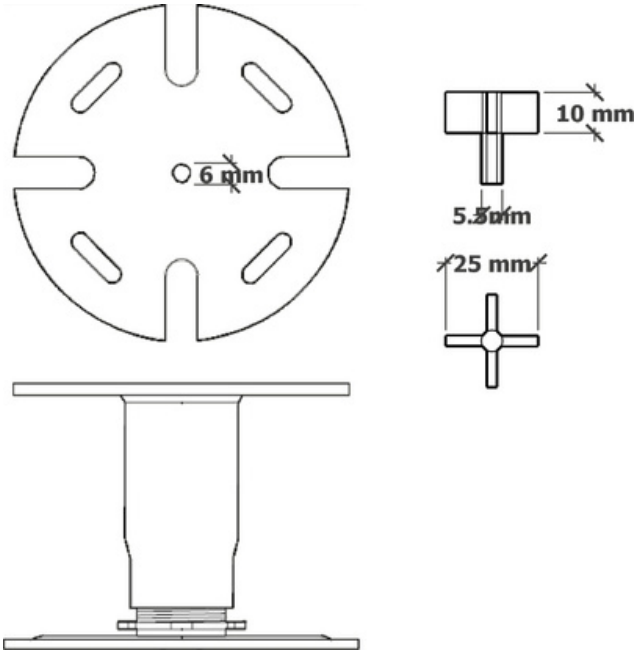
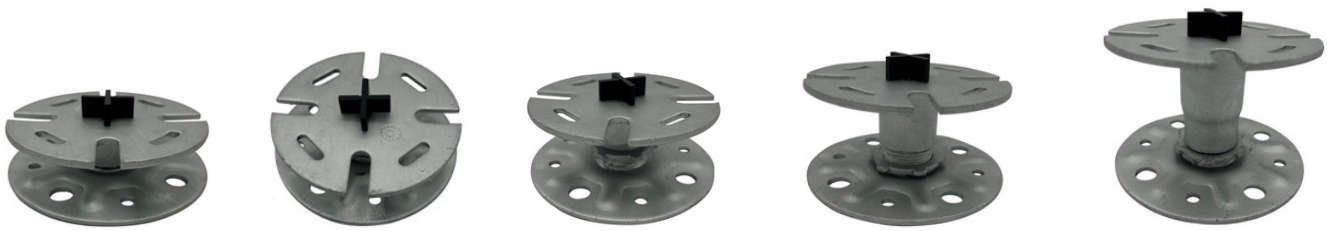
Crucifix for Paving





26-35mm | 30-40mm | 40-50mm | 50-70mm | 60-90mm

75-115mm | 110-185mm | 185-260mm | 250-325mm | 300-375mm

(Larger height pedestals above 375mm are available on special order)

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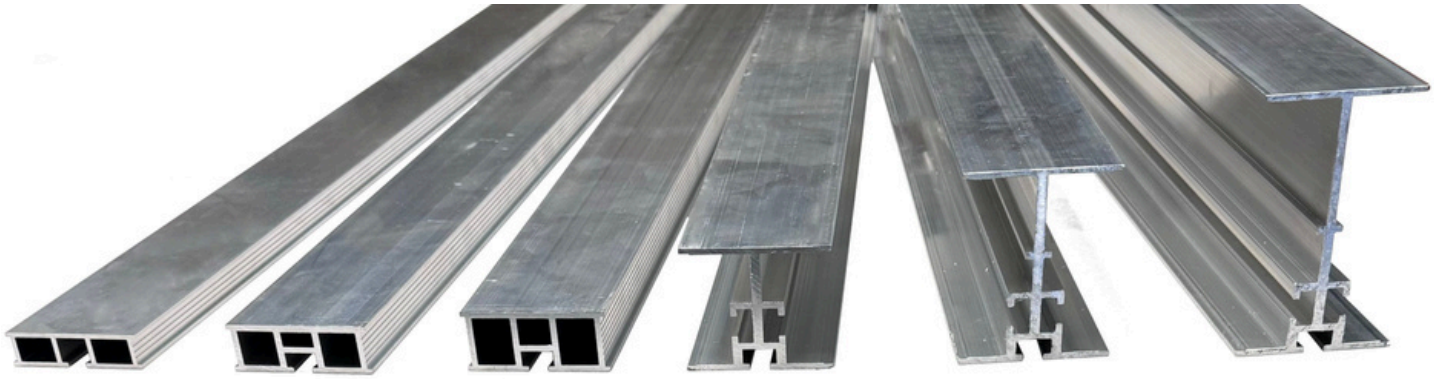
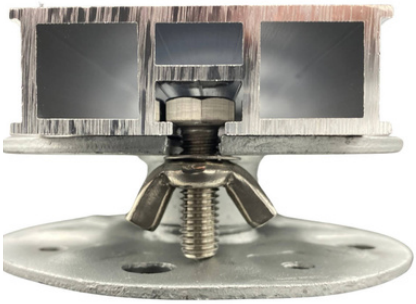
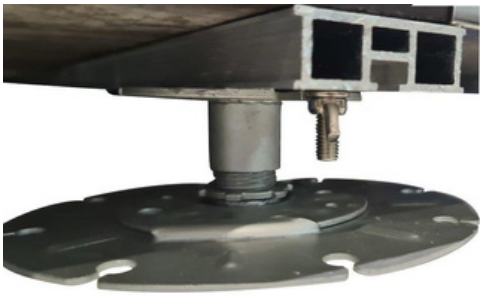
MetalPad Ex with Aluminium Joists / Rails

The MetalPad Ex is designed to work with all Wallbarn aluminium Box & I-Plus joists/ rails. These are connected together using the supplied Wing Nut Kit which is tightened by hand loosely at first. Once the substructure is correctly placed, they can be tightened firmly to create a strong and stable substructure.



15 mm Box Rail	20 mm Box Rail	25 mm Box Rail	50 mm I-Plus Rail	75 mm I-Plus Rail	100 mm I-Plus Rail





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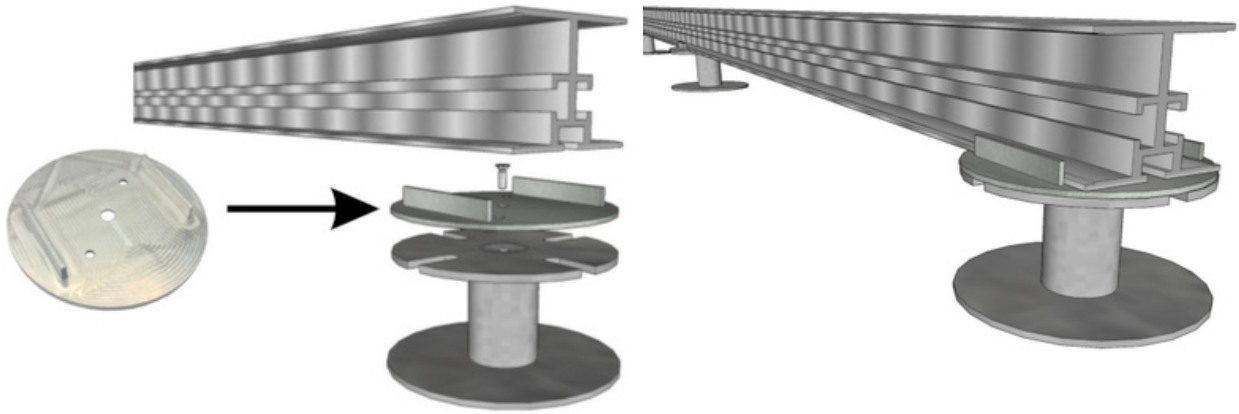
Rail Headpiece

The Rail Headpiece can be used to accommodate any Joist that has a maximum width of 60mm. The headpiece is secured to the MetalPad Ex pedestal and secured with a central screw. The headpiece is Made from High Grade Aluminium 6063 T6 to BS EN 755-9.



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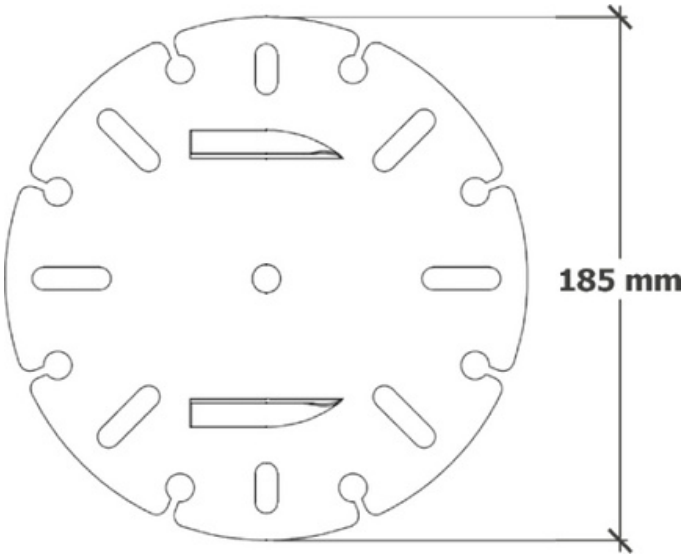
Spreader Plate

The Spreader Plate is designed to significantly disperse weight and reduce point loading on vulnerable subfloors such as insulation or waterproof membranes (Go to Test Report).

The Spreader Plate is compatible with the MetalPad Ex Pedestal, Class A Fixed Height Pedestal & Class A Joist Holder.



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Product Installation

To be used on predominantly flat decks. Pedestals to be placed onto the structural decks, sufficiently strong enough to tolerate the weight of the system. Care should be taken to ensure point loading will not occur under baseplates. An optional Spreader Plate should be added beneath bases to increase surface area for membranes and heavy loads. Waterproofing membranes to be adequately protected before installation of units to prevent point loading and / or puncturing of membrane.

Pedestals are loose-laid without mechanical fixings or adhesive. Wallbarn Aluminium Profiled rails / joists are laid onto headpieces and fixed into place using Wing Nut/Bolt Kit through gap in the headpiece of the pedestal and the bottom of the chosen rail/joist.

Wallbarn I-Plus or Box aluminium rails should be used when installing decking and substructure terrace platform projects. Class A decking boards / plates are mechanically fixed to Aluminium rails / bearers with sufficient gap between decking to ensure adequate drainage.

Telescopic stems are twisted to alter the height of the pedestals so that the rails / joists and then upper decking boards are flat and level in height.

For paving applications paving headpieces can be fitted to tops of headpieces using a screw. “Crucifix” cross spacers / lugs, made from anodized aluminium, are an alternative option for paving applications. Speak to Wallbarn Technical Team for any questions you have about suitability.

It is vital that designers and installers check that the strength of either option of system does not exceed maximum pedestal placement. (See STS UK - Span Test Report)

INSTALLATION ONTO CONCRETE SURFACE

Consult the deflection tests provided above when using our aluminium rails/joists in conjunction with our pedestals on a concrete subfloor. To ensure optimal performance, we recommend avoiding spans that result in a deflection greater than 5mm.

INSTALLATION ONTO WATERPROOFING MEMBRANE / INSULATION

When using our aluminium rails/joists with pedestals, please refer to the provided load and weight tolerance tests to determine the maximum recommended span for pedestal placement in each specific option.

When installing the system on a waterproof membrane, insulation, or vulnerable subfloors, it is essential to consult with the product manufacturer to ensure their product has the compressive strength to handle the desired spacing of our pedestals. In such cases, we highly recommend using the optional Spreader Plate with our Class A pedestals to help distribute the weight and reduce point loading. Using the Spreader Plate increases the weight tolerance of the pedestal significantly.

Maintenance Details

Products are designed to be covered and not disturbed in the long-term. Cavities between the structural deck and the decking should be inspected at least once per year to ensure drainage channels do not become blocked and flammable material does not collect. Jets of water should be used to remove limited amounts of debris, taking care not to block up or damage drainage outlets. For large or compacted debris build-up, removal of the decking boards and removing the debris by hand or machine may be required.

Hazards Identification

The major hazards identified for these products are physical and include manual handling. Sparks and shrapnel / fragments may be generated from cutting processes.

First Aid Measures

In event of cuts or injury, wash out wound with plenty of clean water. Seek medical attention. In event of bruising or impact damage from dropped products, Seek medical attention as soon as possible.

If any metal fragments, shrapnel or foreign body gets into eyes DO NOT TRY TO REMOVE IT FROM YOUR EYE YOURSELF. Go immediately to the First Aid Officer on site. Go to A&E / walk in clinic at a hospital as soon as possible for help.

CUTTING AND DRILLING

For cutting any metal, it is recommended to use premium blades specifically designed to cut metal. This helps minimise sparks and reduces the risk of damaging the components. This is especially applicable when working on top of insulation and waterproofing membranes. Also note that damaged profiles may affect their ability to work seamlessly with our pedestals and/or headpieces. Fragments cut from the pedestals may be hot, so do not attempt to pick fragments up with bare hands and avoid any contact with surfaces such as waterproofing membranes.

When cutting aluminium, it's important to take certain precautions to ensure safety and achieve accurate cuts. Here are some precautions to consider:

1.Personal Protective Equipment (PPE) : Wear appropriate PPE, including safety glasses or goggles, gloves, and a dust mask or respirator to protect your eyes, hands, and respiratory system from metal shavings and dust.

2.Use the Right Tools : Ensure you have the correct tools for cutting aluminium, such as a mitre saw, circular saw, or a specialized aluminium-cutting saw blade. Using the proper tools will help achieve clean and precise cuts.

3.Secure the Workpiece : Securely clamp the aluminium workpiece to prevent it from moving or vibrating during the cutting process. This will ensure stability and reduce the risk of accidents or inaccurate cuts.

4.Cutting Speed and Pressure : Maintain a steady cutting speed and avoid applying excessive force or pressure. Let the cutting blade do the work and allow it to cut through the aluminium at a controlled pace. Applying too much pressure can lead to rough cuts or blade damage.

5.Clear the Work Area : Prior to cutting any metal, it is important to clear the work area of clutter and unnecessary materials. When metal is being cut, sparks can be generated, so it is crucial to have a clean area free of debris to ensure fire safety. By removing any potential obstructions or hazards, you can create a safer environment during the cutting process.

6.Proper Waste Disposal : Collect and dispose of the aluminium shavings and waste material safely and appropriately. Aluminium shavings can be sharp and therefore has the potential to damage waterproofing membrane and/or insulation.

Always follow the manufacturer's guidelines and safety recommendations specific to the tools and equipment you are using. Additionally, consult local regulations and best practices for safe handling and disposal of aluminium waste.

Fire-Fighting Measures

These products are Class A and non-combustible. Therefore, they do not constitute a fire hazard.

Accidental Release Measures

Damaged product can be taken up and the steel should be recycled. As supplied, the products are not classified as hazardous.

Handling & Storage

When handling the pedestals, due regard should be paid to the risks outlined in the Manual Handling Operations Regulations 1992. Appropriate PPE should be used.

Wear suitable protective clothing e.g. overalls, gloves and safety boots to reduce the chances of physical injury while using this product.

Ecological Information

Subsequent to manufacture, this is a stable product with no known adverse environmental effects.

Disposal Considerations

Recycling of the steel material is preferable to disposal. If the product is to be disposed of, disposal should be made at an approved solid waste disposal site. Disposal of the product should be in accordance with any local or national regulations.

WARRANTIES

A Limited Warranty exists that the products will comply with the test data as laid out in this document for a period of 15 Years. Warranty is limited to replacement of products which have been installed in the correct manner and for the correct purpose only. Warranty is limited to the value of the cost price of the materials only, not replacement costs or any other labour cost.

Under no circumstances shall Wallbarn Ltd be held responsible or liable for any incidental, consequential, indirect, special, punitive or any other damage(including, but not limited to, loss of profits, loss of sales, loss of start-up, loss or reduction of work).

This Limited Warranty covers our pedestals on condition that the Installation and Care & Maintenance Instructions are followed, and are installed according to Wallbarn Ltd guidelines.

See Terms and Conditions of the Warranty and Scope of the Guarantee below for other exclusions and limitations of this Warranty.

1) WARRANTY TERMS AND CONDITIONS

1.1 Complaints are physically examined by Wallbarn Ltd.

1.2 Complaints / claims should be filed in writing to Wallbarn Ltd.

1.3 Proof of purchase of the rails/joists should accompany the written complaint / claim. Complaints / claims without the appropriate documentation will not be considered.

1.4 The company examining complaints (or its representatives) reserves the right to check the pedestals in the place of installation, the manner they have been installed and obtain details of the care and maintenance programme carried out before giving considering to the complaint/claim.

1.5 The complaint / claim is only valid if the products are installed in the territory that the original purchase was made.

1.6 Wallbarn Ltd reserves the right to either repair the defect or to offer material free of charge to the customer.

The above guaranteed lifetime of the pedestal exists only where the Products have been installed in the correct and proper manner.

2) VISUAL APPEARANCE WARRANTY ON DELIVERY

Each pedestal is carefully inspected by our quality control team personnel prior to leaving our factory to ensure they are defect free. We urge Customers and the installers to inspect each pedestal prior to installation. This Limited Warranty does not extend to cover defects in pedestals on delivery after installation has taken place.

3) SCOPE OF GUARANTEE

3.1 This guarantee is issued in accordance with and is subject to the laws of England & Wales.

3.2 Obvious defects in the pedestal should be communicated to the supplier within 30 days from the delivery date of goods on site/warehouse. Claims regarding obvious defects after this period will not be considered.

3.3 To be able to make use of the Warranty the product – Mega Balance Pedestals- must be installed according to the Installation Instructions. Use fixings recommended and approved by Wallbarn Ltd as indicated in the appropriate technical documentation. The use of other types of fixtures not provided or approved by Wallbarn Ltd invalidates this Warranty.

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3.4 If a claim is granted before installing the material, faulty pedestals are replaced free of charge.

3.5 No claims can be accepted after installing the material if the buyer could have detected the defects before installation. This Warranty does not cover damage caused by third parties before installation.

TRANSPORT INFORMATION

The best method of transportation is strapped securely onto pallets.

KEY CONTACTS

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APPENDIX A

The following table summarizes the products referenced in this document:

Product	URL
MetalPad Ex Pedestal	https://www.wallbarn.com/fire-rated/metalpad-ex/
Headpieces & Fixings	https://www.wallbarn.com/fire-rated/headpieces-fixings/our-range/
Spreader Plate	https://www.wallbarn.com/fire-rated/headpieces-fixings/spreader-plate/
Aluminium I-Plus Joist/Rail	https://www.wallbarn.com/substructure/i-plus-beam/
Aluminium Box Joist/Rail	https://www.wallbarn.com/substructure/box-rail/

APPENDIX B:

LIMITED WARRANTY

Wallbarn Ltd provides a limited warranty of 15 years for products. This Warranty corresponds to the performance and strength characteristics given in the published technical datasheets.

Wallbarn Ltd warranties that, under normal use and service conditions, and where the products have been installed in the proper manner, Wallbarn Ltd products shall be free from material defects in workmanship and materials, shall not crack, splinter, swell, rot or suffer structural damage from damp or fungal decay.

If a defect occurs within the Warranty Period, the Purchaser shall notify Wallbarn Ltd in writing and, after investigation and confirmation of the defect(s) by a Wallbarn Ltd representative, Wallbarn Ltd's sole responsibility shall be limited to replacement of the affected products or to refund the Purchaser up to the maximum value of the Sales Invoice.

This warranty is null and void if:

- The products are not installed in the proper manner as detailed in official Wallbarn Ltd product catalogues, installation guides and technical datasheets.
- The products are not used for the purposes they are intended, as detailed in official Wallbarn Ltd product catalogues, installation guides and technical datasheets.
- Excessive weights, higher than the maximum weight as detailed in official Wallbarn Ltd product catalogues, installation guides and technical datasheets are placed onto the products.
- The products are installed in contravention of any relevant building regulations, code or standards.
- Any relevant building regulations, code or standards, including fire safety regulations are breached on the project during the construction process.
- There is movement, distortion, collapse or settling of the supporting structure on which Wallbarn Ltd products are installed.
- Any abnormal natural event such as flooding, hurricane, earthquake, lightning, etc., occurs.

Wallbarn Ltd – Limited Warranty

This limited warranty does not cover any living product or any product which sustains life. This includes sedum and other plants and substrate mixes for M-Tray®and any other green roof system.The living and growing elementsof M-Tray® and other green roof systems are specifically excluded from this Warranty.

This Warranty is limited to the maximum amount of the Sales Invoice and Wallbarn Ltd is not liable for any costs of examination, removalor installation of products. WallbarnLtd will not be responsible for any costs or expenses incurred during removal and replacement, including labour or transport costs.

This warranty is given only if the products are used for the purposes they are intended, as detailed in official Wallbarn Ltd product catalogues, installation guides and technical datasheets and are installed in the correct manner.

To make a claim under this Limited Warranty, the Purchaser should contact Wallbarn Ltd with a full report of the defects within the Warranty Period, including photographic evidence and proof of purchase. Any claim should be made to sales@wallbarn.com as soon as possible by the Purchaser.

Our Terms & Conditions of Supply can be found here
https://www.wallbarn.com/terms-conditions-of-supply/

APPENDIX C:

TEST CERTIFICATE

LOAD TESTING IN ACCORDANCE WITH THE CLIENT'S SPECIFICATION

On Wallbarn Limited,
3 Hagley Court North, The Waterfront, Dudley, West Midlands, DY5 1XF

PROOF LOAD TESTING
STS LABORATORY

TEST DESCRIPTION: A weight tolerance test was conducted on various pedestals. Testing was completed using a jack to apply a vertical compressive load centre to the product, to confirm structural performance and determine load failure limit. All testing was carried out in accordance with the client's specification.

REF NO.:	DR-5744	**DATE TESTED:**	15th May 2024
JOB NO.:	P10259	**CERTIFICATE DATE:**	24th May 2024
CERTIFICATE NO.:	IC11714	**SUPPLIER/SOURCE:**	Client

TEST DETAILS:

Product Tested:	Various Pedestal Samples (See table Below)	Item Condition:	New
Target Loads:	Failure	Ambient Temperature:	18°C
Test Location:	STS Laboratory	Procedure or Method:	Client's Specification

TEST RESULTS:

Test Product	Product Material	Load Achieved (kN)
26 – 35mm Pedestal	Steel	53.67
185 – 260mm Pedestal	Steel	49.86
26 – 35mm Pedestal with Spreader Plate	Steel	70.69
185 – 260mm Pedestal with Spreader Plate	Steel	129.53
10mm Fixed Height Pad	Aluminium	209.24

ANALYSIS:
Testing was completed with each individual pedestal obtaining failure loads. Following this, the highest load achieved at failure was the 10mm Fixed Height Pad, achieving a load of 209.24kN before failure. The 185 – 260mm Pedestal obtained the lowest load achieved, with 49.86kN before the product began to deform. All testing was completed within the client's specification.

For Specialist Technical Services (U.K) Limited			The results found on this Certificate relate only to the product[s] tested as described above This Test Certificate shall not be reproduced except in full
Approved By:	Andrew Gore		
Position:	Technical Director		
	Signature:		QC: TC001 – Test Certificate – v4.0 | Page 1 of 1

END OF PAGE

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E: info@sts-group.co.uk

Offices Located at: Chester | Ellesmere Port
Website: https://www.sts-group.co.uk

APPENDIX D:

TEST CERTIFICATE

LOAD TESTING IN ACCORDANCE WITH BS 8579:2020

On Wallbarn Limited,
3 Hagley Court North, The Waterfront, Dudley, West Midlands, DY5 1XF

PROOF LOAD TESTING
STS LABORATORY

TEST DESCRIPTION: A weight tolerance test was conducted on various aluminium rails fitted to steel pedestals, increasing in 100mm spans from the centre of the rail. Testing was completed using a jack to apply a vertical compressive load centre to the product, to confirm structural performance. Loading results obtained were recorded at the limit of 5mm deflection. All testing was carried out in accordance with the client's specification.

REF NO.:	DR-5744	**DATE TESTED:**	15th May 2024
JOB NO.:	P10259	**CERTIFICATE DATE:**	24th May 2024
CERTIFICATE NO.:	IC11716	**SUPPLIER/SOURCE:**	Client

TEST DETAILS:

Product Tested:	Aluminium Rail with Steel Pedestal	Item Condition:	New
Target Loads:	5mm Deflection	Ambient Temperature:	18°C
Test Location:	STS Laboratory	Procedure or Method:	BS 8527:2020

TEST RESULTS:

Test Product	Load Achieved (kN)											
	100mm from Centre	200mm from Centre	300mm from Centre	400mm from Centre	500mm from Centre	600mm from Centre	700mm from Centre	800mm from Centre	900mm from Centre	1000mm from Centre	1100mm from Centre	1200mm from Centre
15mm Rail	2.04	2.08	2.01	1.13								
20mm Rail	2.02		2.03	1.98								
50mm Rail			2.10	1.54	1.43	1.40	1.28					
75mm Rail			2.26	2.03	2.01	1.97	1.90	1.88	1.78	1.28		
100mm Rail			2.02	2.05	2.05	2.05	2.05	2.02	2.00	2.05	2.02	1.90

ANALYSIS:
Testing was completed with each individual rail obtaining various loads before reaching 5mm deflection. The 15mm & 20mm rail reached a 400mm span before the maximum deflection was obtained, with the 100mm rail reaching a span of 1200mm from the centre, before obtaining maximum permissible deflection. All testing was completed within the BS 8572:2020.

For Specialist Technical Services (U.K) Limited			The results found on this Certificate relate only to the product[s] tested as described above This Test Certificate shall not be reproduced except in full
Approved By:	Andrew Gore		
Position:	Technical Director		
	Signature:		QC: TC001 – Test Certificate – v4.0 | Page 1 of 1

END OF PAGE

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E: Info@sts-group.co.uk

Offices Located at: Chester | Ellesmere Port
Website: https://www.sts-group.co.uk

APPENDIX E:

Zintek® 200 XT

Zinc flake coatings from Atotech

General Metal Finishing | Zinc flake coatings | atotech.com

The neXT level base coat

Premium silver base coat with high cathodic corrosion resistance

For a premium silver zinc flake base coat that maintains a shiny, bright, and attractive silver color, turn to MKS' Atotech Zintek® 200 XT. The base coat provides superb adhesion and is not prone to hydrogen embrittlement. When combined with MKS Atotech top coats, Zintek® 200 XT offers outstanding cathodic corrosion protection and staves off white rust formation. The base coat also demonstrates exceptional performance in Neutral Salt Spray Testing (NSST) as well as in Cyclic Corrosion Testing (CCT).

Corrosion resistance

Base coat	Top coat	Durability
8 µm	–	>1,700 h*
8 µm	–	6 cycles**
10 µm	–	>2,000 h*

Corrosion resistance acc. to *ISO 9227 / **Ford L-467 and layer thickness may vary depending on part geometry, substrate and application method.

Features and benefits

- Inorganic premium silver zinc flake base coat
- Outstanding cathodic corrosion protection
- Exceptional performance in NSST and Cyclic Corrosion Testing (CCT)
- Excellent delay in white rust formation
- High color stability
- Very good adhesion
- Attractive silver appearance
- No hydrogen embrittlement
- Free of harmful heavy metals such as Cr(VI), cadmium, cobalt, lead or nickel
- Combinable with MKS' Atotech top coats

mks | Atotech

Zintek® 200 XT
Zinc flake coatings from Atotech

Application

- Dip-spin
- Rack-spin
- Spray

Top coat combinations

- With inorganic Zintek® Top
- With organic Techseal®
- With organic Techdip®

Parts (application)

- Fasteners
- Chassis parts
- Stamping parts
- Brake components
- Springs
- Clips

Application parameters

- Application viscosity: 40 – 50 sec
- Curing time: 15 – 45 min
- Curing temperature: 220 – 260 °C
- Recommended 30 min at 250 °C object temperature

Coefficient of friction

- No defined coefficient of friction (μ_{tot})

Technical data

- Delivery density: 1.40 – 1.55 g/cm³ (at 23 °C)
- Stability in sealed drums: 24 months
- Theoretical coverage rate: 25 m²/kg (based on 8 µm dry film)

Corrosion performance (8 µm layer thickness)

Start

>1,800 h*

Start

6 cycles**

Atotech an MKS Brand

info@atotech.com

atotech.com

APPENDIX F

Reaction to fire classification report

Issuing laboratory: Warringtonfire Testing and Certification Limited

Classification standard:	EN 13501-1: 2018
Sponsor(s):	Wallbarn Ltd
Product(s):	"Zintek 200"
Report number:	544697
Version:	1

Quality management

Version	Date	Summary of amendments including reasons			
1	10 September 2024	Description	Initial issue		
			Prepared by	Reviewed by	Authorised by
		Name	Tracy Deluce	Leslie Berry	Stacey Deeming
		Signature			
			*Signed for and on behalf of Warringtonfire Testing and Certification Limited		

Contents

1. Introduction

This classification report defines the classification assigned to "Zintek 200", in line with the procedures given in EN 13501-1: 2018.

Warringtonfire Testing and Certification Limited (Warringtonfire) issued the classification report at the request of the sponsor listed in Table 1.

Table 1 Sponsor details

Entity	Address
Sponsor	
Wallbarn Ltd	Unit 16 Capital Business Park, 22 Carlton Road, South Croydon, CR2 0BS, United Kingdom

2. Details of classified product

2.1 General

The product, "Zintek 200", is defined as being suitable for construction applications excluding flooring and linear pipe thermal insulation applications.

2.2 Product description

The product, "Zintek 200", is described in Table 2 and in the test reports listed in Section 3.1.

Table 2 Product description

Item		Detail
General description		Coated steel sheet
Product reference of overall composite		“Zintek 200”
Name of manufacturer		MetalFloor (Steel manufacturer) Atotech (coating material manufacturer) AST (applicator)
Overall thickness (coated steel)		1.55-1.62mm (stated by sponsor) 1.49mm (determined by Warringtonfire)
Overall weight per unit area (coated steel)		11.33kg/m² (stated by sponsor) 11.33kg/m² (determined by Warringtonfire)
Coating	Generic type	An inorganic, zinc rich corrosion protective base coating material made with zinc and aluminium flakes.
	Product reference	“Zintek 200”
	Name of manufacturer	Atotech
	Colour	Silver
	Number of layers	1
	Overall thickness	0.05-0.12mm
	Application rate	30g/m²
	Specific gravity	See Note 1 below
	Application method	Spray
	Curing process	Oven cure 40 mins, at 220°C
	Flame retardant details	See Note 2 below

Continued on next page

Item		Detail
Steel	Generic type	Steel plate
	Product reference	“MetalPad EX “
	Name of manufacturer	MetalFloor
	Thickness	1.5mm
	Weight per unit area	11.7kg/m²
	Flame retardant details	See Note 2 below
Brief description of manufacturing process		Steel coated with’ Zintec 200’, an inorganic, zinc rich corrosion protective base coating material made with zinc and aluminium flakes.
Mounting and fixing details		The coated steel was tested over a 12mm thick calcium silicate substrate as defined in EN 13238:2010

Note 1: The sponsor was unable to provide this information.

Note 2: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

3. Test reports and test results in support of classification

3.1 Test reports

Table 3 details the test reports that have been used in support of classification.

Table 3 Test reports

of laboratory	Name of sponsor(s)	Test report no.	Test date	Test and extended application standard
Warringtonfire	Wallbarn Ltd	544691 (Issue 2)	14 June 2024	EN 13823: 2020 + A1: 2022
Warringtonfire	Wallbarn Ltd	544692 (Issue 2)	19 June 2024	EN ISO 1716: 2018 (*)

(*) As the test procedure for EN ISO 1716 remained identical for versions 2010 & 2018 and no substantial technical changes were noticed in the most recent version 2018, results obtained with the 2018 version can also be considered valid for classification purposes (where only the 2010 version is mentioned).

3.2 Test results

3.2.1 Official test results used for the classification

Table 4 details the test results that have been used in support of classification. The fire performance parameters for class A2 - s1, d0 can be found in Table 5.

Table 4 Test data

Test method Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
EN 13823: 2020 + A1: 2022 544691 (Issue 2)	FIGRA (THR(t) threshold of 0.2MJ)		0	-
	FIGRA (THR(t) threshold of 0.4MJ)		0	-
	THR600s (MJ)		0.2	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m²/s²)		0	-
	TSP600s (m²)		5 -	- Compliant
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s			
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
EN ISO 1716: 2018 544692 (Issue 2)	Average gross heat of combustion, QPCS (MJ/m²) of external non-substantial component on non-homogeneous product Coating	3	0.3	-
EN ISO 1716: 2018 N/A	Average gross heat of combustion of substantial component, of non-homogeneous product, QPCS (MJ/kg) Steel	-	0.0	-
Product as a whole, QPCS (MJ/kg)			0.0	

Note: '-' symbol confirms this parameter is not applicable.

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018.

4.2 Classification

The product "Zintek 200" in relation to its reaction to fire behavior is classified as:

A2

The additional classification in relation to smoke production is:

s1

The additional classification in relation to flaming droplets / particles is:

d0

The format of the reaction to fire classification for construction applications excluding flooring and linear pipe thermal insulation applications products is:

Fire behaviour		Smoke production			Flaming droplets	
A2	-	s	1	,	d	0

Alternatively shown:

Reaction to fire classification: A2 - s1, d0

4.3 Field of application

The classification for the product described in Section 2.2 of this report is valid for end use applications described in Table 5.

End use	Description	Origin
Substrate	Any substrate with a density equal to or greater than 652.5 kg/m³, a minimum thickness of 9 mm and a fire performance of A2-s1, d0 or better (excluding paper faced gypsum plasterboard).	As per EN 13238: 2010, clause 5.3 and EGOLF recommendation 045-2018.
Airgap	None allowed	N/A

This classification is valid for the following product parameters:

- Overall thickness: 1.55-1.62mm (no variation allowed)
- Overall weight per unit area: 11.33kg/m^2(no variation allowed)
- Coating thickness: 0.05 – 0.12mm (no variation allowed)
- Coating application rate: 30g/m^2(no variation allowed)
- Number of layers of coating: One (no variation allowed)
- Coating application method: Spray (no variation allowed)
- Coating curing process: Oven cure 40 mins, at 220°C (no variation allowed)
- Coating colour: Silver (no variation allowed)
- Steel thickness: 1.5mm (no variation allowed)
- Steel weight per unit area: 11.7kg/m² (no variation allowed)
- Use of flame retardants: No variation allowed
- Construction: No variation allowed

  Composition: No variation allowed

4.4 Fire performance parameters for A2 - s1, d0

All the products described in Section 2.2 and within the field of application defined in Section 4.3 comply with the fire performance parameters shown in Table 5. The test results can be found in Section 3.2.

Table 5 Fire performance parameters for A2 - s1, d0

Test method	Parameter	Continuous parameters	Compliance with parameters
EN 13823: 2020 + A1: 2022	FIGRA (THR(t) threshold of 0.2MJ)	FIGRA0,2MJ ≤ 120 W/s	-
	FIGRA (THR(t) threshold of 0.4MJ)	-	-
	THR600s (MJ)	THR600s ≤ 7,5 MJ	-
	Lateral flame spread to edge of test specimen?	-	LFS < edge of specimen
	SMOGRA (m²/s²)	SMOGRA ≤ 30m²/s²	- -
	TSP600s (m²)	TSP600s ≤ 50m²	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s
	Fall of flaming droplets/particles < 10s?	-	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s
	Fall of flaming droplets/particles > 10s?	-	

Continued on next page

Test method	Parameter	Continuous paramet ers	Compliance with parameters
EN ISO 1716: 2018	Average gross heat of combustion for substantial components of non-homogenous products, QPCS (MJ/kg)	PCS ≤ 3,0 MJ/kg	-
	Average gross heat of combustion per unit area for any external non-substantial component of non-homogenous products, QPCS (MJ/m²)	PCS ≤ 4,0 MJ/m²	-
	For the product as a whole, (MJ/kg)	PCS ≤ 3,0 MJ/kg	-

Note: '-' symbol confirms this parameter is not applicable.

5. Restrictions

At the time the standard EN 13501-1: 2018 was published, no decision was made about the duration of validity of a classification report.

When this report is used to support UKCA marking under the Construction Products Regulation 2011 (retained EU law EUR 2011/305) as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020 and/or 'CE+UK(NI)' marking for Northern Ireland under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011, the provisions of those regulations prevail over any conflicting provisions in the designated/harmonised standards and technical specifications.

6. Limitations

According to the information mentioned by the sponsor on the technical information sheet there was no harmonised product standard for UKCA or CE+UK(NI) marking available at the time the classification report for the tested material/product was drafted. When such a product standard is published, this report may be submitted again to the laboratory to evaluate the adequacy of the report for UKCA or CE+UK(NI) marking.

The test laboratory played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide evidence for the traceability of the samples tested.

7. Validity

This document is the original version of this classification report and is written in English. In case of doubt the original version prevails over a translation.

This document is issued subject to Warringtonfire's standard terms and conditions, which are available at: Terms and Conditions | Element.

The classification results relate to the behaviour of a product under the particular conditions of the test(s); they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use, nor can the classification results be extrapolated and applied to other products, or imply suitability for use in configurations not specifically detailed in the classification report. The classification is based on the information available to Warringtonfire at the time of the report. Should conflicting or contradictory evidence become available, Warringtonfire reserves the right to unconditionally withdraw the classification report forthwith upon giving written notice of the same.

Reports are statements of fact prepared in accordance with the referenced version of the standards stated in Section 3 of this report. Test, classification and extended application are based upon the information provided to Warringtonfire. Warringtonfire takes no responsibility for the accuracy or completeness of such information.

The results stated in this classification report apply to the test specimens as received and/or specified in the referenced/supporting test reports. Any differences in composition, production process, thickness, density or colour of the product may significantly affect the performance and will therefore invalidate the application of the test and classification results to the variant product. It is recommended that any proposed variation to the tested configuration or product should be referred to the sponsor. The sponsor should then obtain appropriate documentary evidence of compliance from Warringtonfire or another accredited testing authority. The supplier of the product is responsible for ensuring that the product which is supplied for use is identical to the test specimens that were tested.

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This document does not represent type approval or certification of the product. Warringtonfire does not give an opinion nor is it Warringtonfire's responsibility to determine or state whether the product meets any particular fire or life safety standards as set out in the Building Regulations or any other appropriate document.

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