

**Non-combustible** Aluminium Insulated Spandrel Panels







www.metalline.co.uk

### ULTIMA INSULATED SPANDREL PANELS

A NON-COMBUSTIBLE PANEL THAT IS TESTED TO EN13501-1 WHICH DELIVERS BOTH TECHNICALLY AND CONFORMS TO REGULATIONS.

#### SUITABLE FOR NEW BUILD PROJECTS AND FOR THE REPLACEMENT OF NON-COMPLIANT CLADDING.

Due to the ban on combustible cladding being used on buildings above 18 metres as detailed in part B of the Building Regulations Metalline has developed the Ultima non-combustible range of Spandrel Panels.

The Ultima range of panels have undergone testing to EN13501-1 and achieved both A1 and A2 - s1,d0 classification.

The Ultima panel can be constructed using a range of face finishes dependant upon the classification required, the thickness of the insulation can also be varied to accommodate 'U' values on your project.

#### **ULTIMA | CONTENTS**

ULT 1	4
ULT 2	5
ULT 3	6
ULT 4	7
ULT 5	8

- A1 & A2 s1,d0 classification to EN13501-1:2018
  Limitless colour options
  Low maintenance
- 🖄 High resistance to UV
- Extremely flat
- 🔊 Strong and durable
- Panels can be fitted into Structural Glazing systems









### ULTIMA INSULATED SPANDREL PANELS

#### **RESEARCH AND DEVELOPMENT**

Metalline's continued commitment to R&D has seen them time and again achieves firsts. Metalline was the first UK fabricator to be able to offer 6000mm x 2000mm spandrel panels. Now after further investment Metalline is the first UK fabricator to be able to offer A1 (non-combustible) spandrel panels tested to EN13501 : 2018

#### **THERMAL PERFORMANCE**

Advice on how to meet specific U values to comply with thermal performance requirements can be given by our technical team.

#### **FIRE PERFORMANCE**

The Building (Amendment) Regulations, SI 2018/1230 came into force on 21st December 2018. The amendment implements the promised ban on combustible cladding by prohibiting the use of combustible materials anywhere in the external walls of high-rise buildings over 18m above ground level, containing one or more dwellings.

Metalline's Ultima panel range has been tested to EN13501-1 and achieved both A1 and A2 - s1,d0 classification. Making the range perfect for new build or the replacement of non-compliant spandrel panels.

#### **ACOUSTIC PERFORMANCE**

Ultima panels can be specified to meet specific acoustic performance criteria. Using insulation cores tested by The Sound Research Laboratories, Metalline can produce panels for most environments. They have been successfully specified on buildings in high noise areas such as airports, city centres and industrial environments.

## BONDING AND STRUCTURAL PERFORMANCE

Independently tested by Wintech Engineering, metal facings are pressure bonded to the insulation core using an adhesive which can withstand temperatures -40°C to 140°C.



- Ultima A1 External Aluminium tray with anodised finish Core - Fabrock Clad insulation Internal - Aluminium sheet with anodised finish /Mill finish aluminium / Pre-galvanised steel
- Ultima A2 **External** Aluminium sheet with PPC finish **Core** - Fabrock Clad insulation **Internal** - Aluminium sheet with PPC finish / anodised finish / Mill finish aluminium / Pre-galvanised sheet steel



#### **Product Features**

- ~
- A1 & A2 s1,d0 classification to EN13501-1:2018
- Limitless colour options
- 💥 Low maintenance
- KG Strong & durable
- **£** Cost effective solution
- Ease of installation
- C Perfect for replacement of non-compliant spandrels
- Panels can be fitted into Structural Glazing systems

# ULT 1





- Ultima A1 External - Aluminium tray with anodised finish **Core** - Fabrock Clad insulation Internal - Aluminium tray with anodised finish / Mill finish aluminium / Galvanised steel
- Ultima A2 **External** – Aluminium sheet with PPC finish **Core** - Fabrock Clad insulation Internal - Aluminium tray with PPC finish / anodised finish / Mill finish aluminium / Galvanised steel



#### **Product Features**

- $\mathbf{A}$
- A1 & A2 s1,d0 classification to EN13501-1:2018
- Limitless colour options
- X Low maintenance
- KG/ Strong & durable
- f Cost effective solution
- $\mathbf{X}$ Ease of installation
- Perfect for replacement of  $\bigcirc$ non-compliant spandrels
- Available in landscape or portrait IÈ orientation
- Panels can be fitted into Structural Glazing systems

## ULT<sub>2</sub>





Ultima A1 External – Aluminium tray with anodised finish Core - Fabrock Clad insulation Internal - Foil faced Rockwool insulation (A1) fitted to an internal galvanised steel / aluminium balancer sheet

Ultima A2 External – Aluminium sheet with PPC finish Core - Fabrock Clad insulation Internal - Foil faced Rockwool insulation (A1) fitted to an internal galvanised steel / aluminium balancer sheet



#### **Product Features**

- A1 & A2 s1,d0 classification to EN13501-1:2018
- Limitless colour options
- 💥 Low maintenance
- 🔊 Strong & durable
- **£** Cost effective solution
- Ease of installation
- *C* Perfect for replacement of non-compliant spandrels
- No visible fixings
- Panels can be fitted into Structural Glazing systems

## ULT3





- Ultima A1 External Aluminium tray with anodised finish Core - Fabrock Clad insulation Internal - Aluminium sheet with anodised finish /Mill finish aluminium / Pre-galvanised steel
- Ultima A2 External Aluminium tray with PPC finish Core - Fabrock Clad insulation Internal - Aluminium sheet with PPC finish / anodised finish / Mill finish aluminium / Pre-galvanised sheet steel



#### **Product Features**

- A1 & A2 s1,d0 classification to EN13501-1:2018
- Limitless colour options
- 💥 Low maintenance
- KG Strong & durable
- **£** Cost effective solution
- Ease of installation
- Perfect for replacement of non-compliant spandrels
- Panels can be fitted into Structural Glazing systems

## ULT4





- Ultima A1 **External** Aluminium tray with anodised finish **Core** - Fabrock Clad insulation **Internal** - Aluminium tray with anodised finish / Mill finish aluminium / Galvanised steel
- Ultima A2 External – Aluminium tray with anodised finish / PPC finish Core - Fabrock Clad insulation Internal - Aluminium tray with PPC finish / anodised finish / Mill finish aluminium / Galvanised steel



#### **Product Features**

- A1 & A2 s1,d0 classification to EN13501-1:2018
- Limitless colour options
- 💥 Low maintenance
- KG Strong & durable
- **£** Cost effective solution
- 🧏 Ease of installation
- *C* Perfect for replacement of non-compliant spandrels
- Panels can be fitted into Structural Glazing systems







In September 2020, the Society of Façade Engineering **(SFE)** and the Centre for Window and Cladding Technology **(CWCT)** released further guidance with regards to the existing 2018 Building Regulations. Many queries were raised in relation to the materials used to construct external walls as well as façades since the ban on the use of combustible materials was introduced in November 2018.

Section 6.2 of this document refers directly to "spandrel/infill panels".

#### Section 6.2.1 states:

#### 6.2.1 Perimeter edge seal

A key component of a spandrel/infill panel is the perimeter edge detail. This is a component which performs multiple functions, all of which are vital to the overall performance of the panel. Not only does it provide a weather-seal, but it is also a thermal break and a key structural component of the panel. Typically, a material such as PVC is used.

A non-compressible spacer is required in order to be able to adequately clamp the panel into the curtain wall/windows frame. The edge of the panel must also be sealed; the edge of the panel is in the drainage zone of the frame and as such may be subject to periodic wetting. Tapes are often used to create this seal.

The spacer material is often selected so as to reduce heat loss and condensation risk at the panel edge, and so it is considered as a thermal break and is therefore exempt from the requirements of regulation 7(2). This applies to spacers used 'normally', i.e. a spacer of minimum size, limited to the very edge of the panel, as illustrated in Figure 4 below.

Where the edge spacer must be sealed to prevent moisture entering the panel (e.g. to prevent deterioration or reduction of thermal performance of the products/material within the panel) then the seal might be considered exempt from the requirements of Regulation 7(2).



### For further guidance please contact Metalline

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Aluminium Insulated Spandrel Panels





## ULTIMA TESTED TO EN13501-1:2018

Metalline's Ultima panels were tested in November 2020 by a UKAS accredited testing body.

# ULTIMA A1

0.3 MJ/kg
PASSED

Reaction to fire classification: A1

# **ULTIMA A2**

Lateral flame spread to end of specimen?	PASSED
Fall of flaming droplets / particle?	PASSED
Flaming of fallen particle exceeding 10 seconds?	PASSED
For the product as a whole PCS (e)	0.97 MJ/kg

Reaction to fire classification: A2 - s1,d0

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