BY YOUR SIDE®

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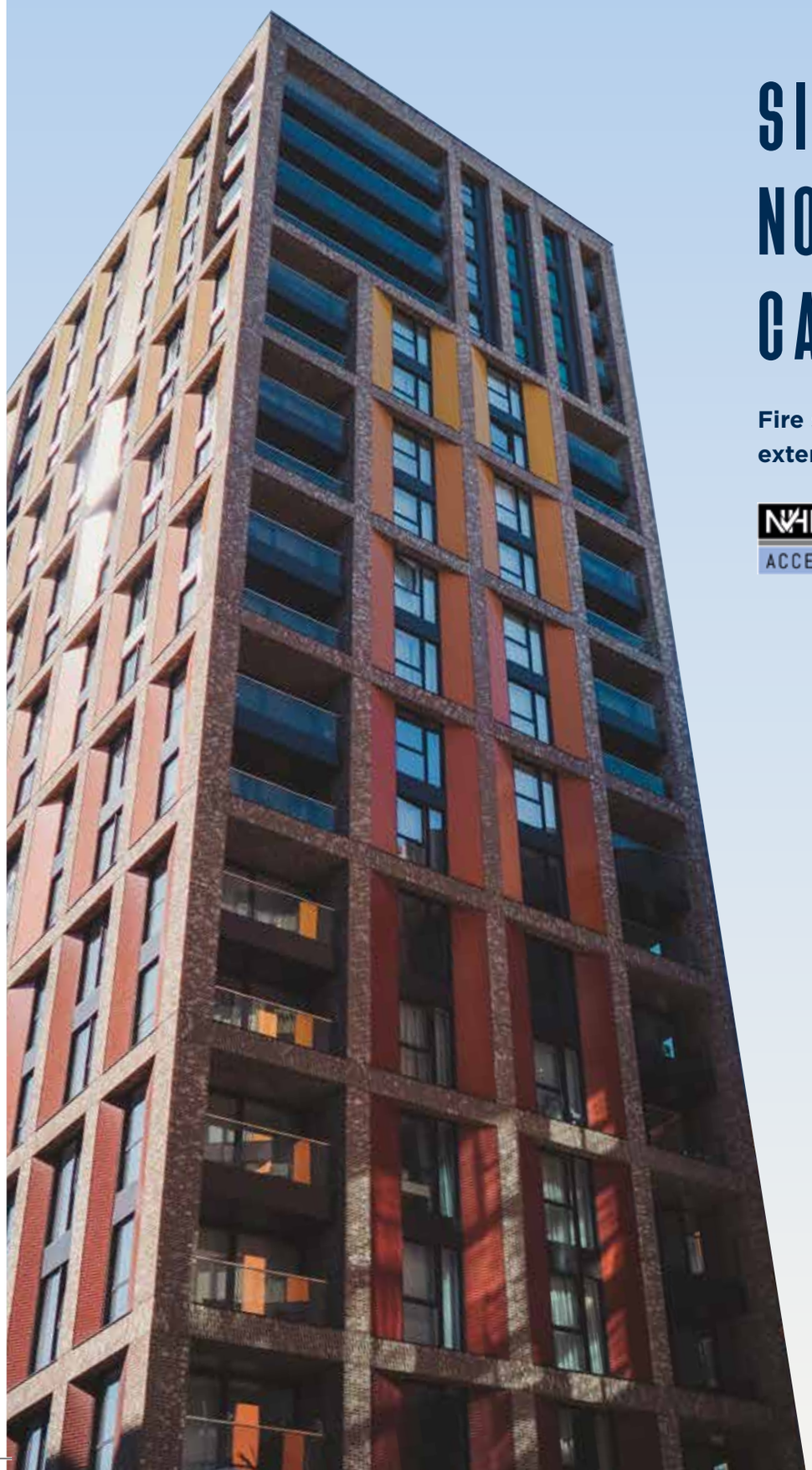


SIDERISE NC-CT NON-COMBUSTIBLE CAVITY TRAY

Fire safe solutions to damp-proofing external masonry walls

NHBC ACCEPTS

warranty LABC

premier guarantee

SIDERISE®
integrity in all we do

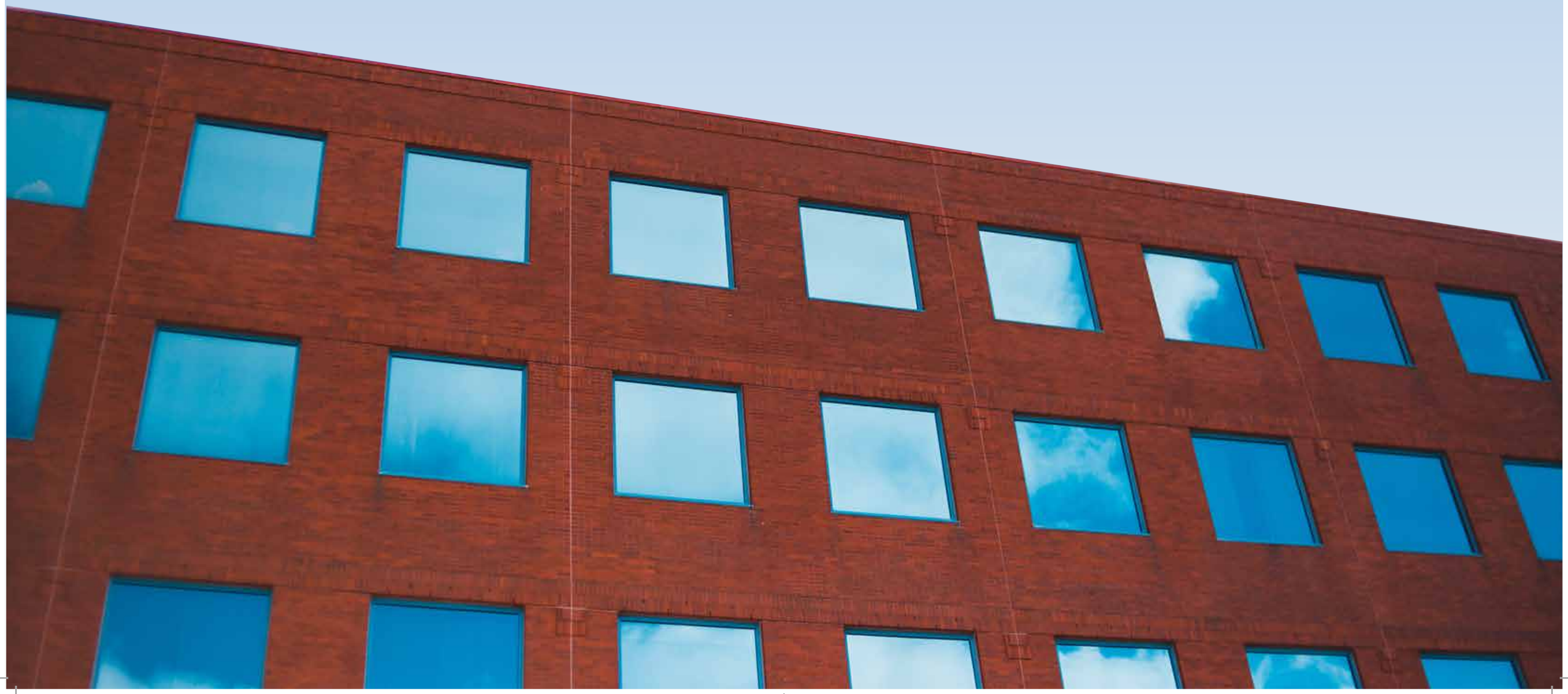
SIDERISE NC-CT CAVITY TRAY

The Siderise NC-CT has been created specifically to provide a comprehensive, compliant solution for masonry facades. Unlike similar products on the market, it comprises of a flexible aluminium cavity tray with integral non-combustible insulation, creating a single-component solution that is simple to specify and install.

This robust patented and factory-engineered design not only provides reliable quality and performance but has been tested to rigorous standards such as EN 13501-1 fire classification of construction products and building elements, achieving a non-combustible A2-s1, d0 rating.

Cavity trays perform the job of a damp proof course. They are angled to bridge the cavity in a way that directs moisture away from the inner leaf and enables it to drain externally.

This helps to prevent lingering moisture, making sure that any rain that gets through to the cavity does not reach the inner leaf. This reduces the risk of damp which can cause serious problems for buildings and occupants alike.



APPLICATION

Siderise NC-CT Non-combustible cavity tray has been developed to provide a non-combustible cavity tray solution which can be installed with our EW systems to seal and protect external wall cavities in the event of fire and smoke in masonry constructions. It is designed to meet the requirements of Approved Document B for steel framed buildings over 18m.

As with traditional cavity trays Siderise NC-CT provides an essential damp proof course (DPC) that crosses the cavity of a masonry wall to prevent dampness from permeating the internal skin of a wall, whilst additionally being classified as non-combustible in the event of fire.

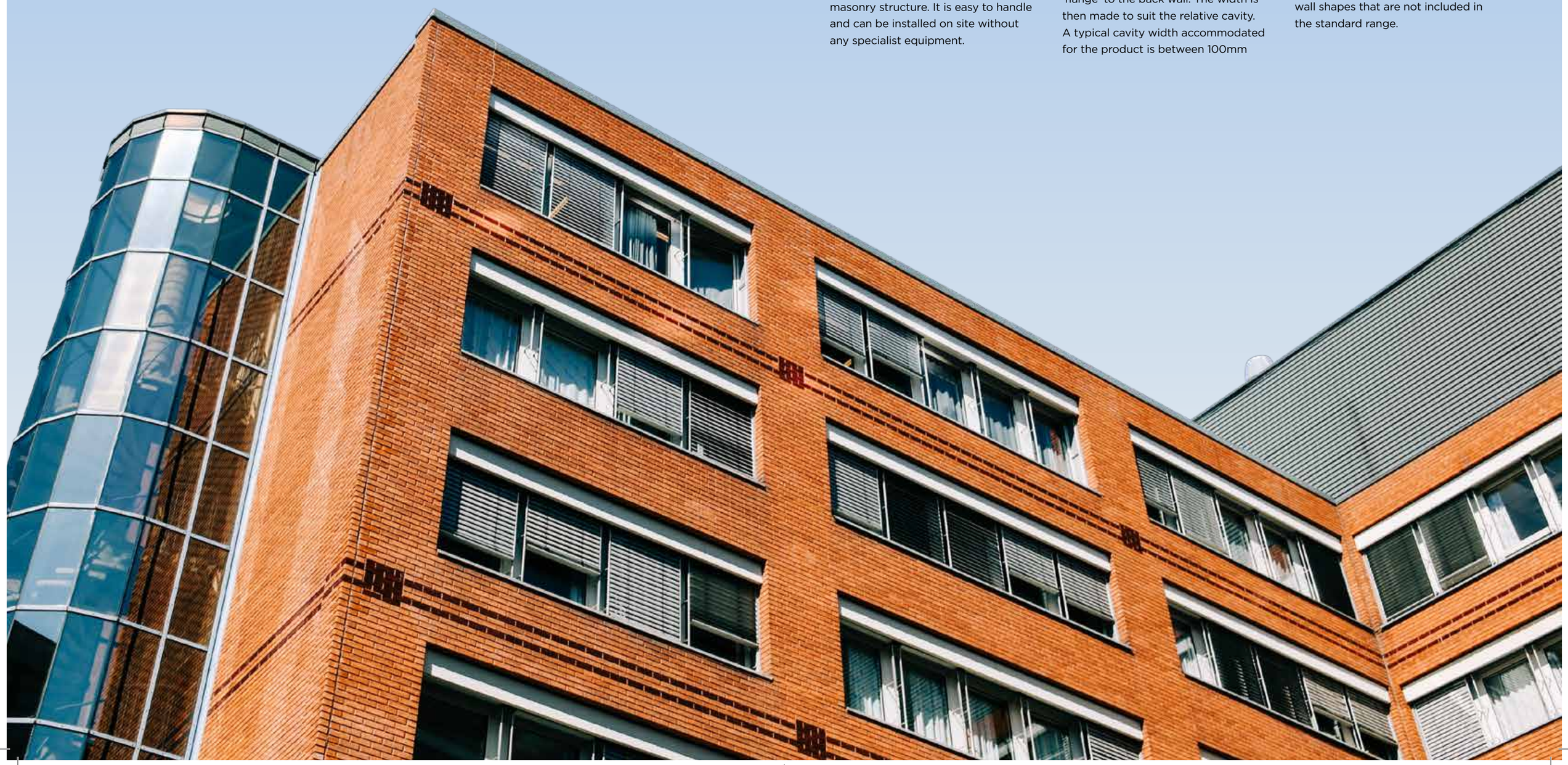
NC-CT is a lightweight solution that is simple to install and provides a durable solution to the problem of damp penetration below the roof line of a masonry structure. It is easy to handle and can be installed on site without any specialist equipment.

Siderise NC-CT is rated A2-s1, d0 to EN 13501 – and has been BBA tested and approved by NHBC, LABC and Premier Guarantee. It is compliant with Approved Document B and can be used in buildings that stand at 18m and over.

The product has a running length of 1m with 50mm overlap joint, therefore 1m installed but 1050mm when packaged.

It is manufactured in 150mm triangular sections and an additional 50mm ‘flange’ to the back wall. The width is then made to suit the relative cavity. A typical cavity width accommodated for the product is between 100mm to 350mm. In the event of a project application where the NC-CT cavity tray is not sitting on Siderise EW horizontal barriers, this would need to be reviewed at project level and drawings will need to be supplied. When it comes to drainage when installed, NC-CT will allow weep holes to function as normal.

Our technical services team (**technical.services@siderise.com**) can be contacted for any widths or wall shapes that are not included in the standard range.



PRODUCT DESCRIPTION

Siderise NC-CT Cavity Tray's design features include dual aluminium skins to produce a secondary defence against moisture ingress. The aluminium faces are robust and durable to cope with site installation whilst ensuring that the water permeability is not compromised. The same unique formulation of stonewool is used in the central core as is used for all Siderise fire barriers to maintain continuity of performance.

Fire performance

Under current regulations, for high rise residential and other relevant buildings over 18 metres, cavity trays must achieve an A1 or A2-s1,d0 Euroclass rating, unless they are between two leaves of masonry (Approved Document B, regulation 7, paragraph 3a). This means that any cavity trays being installed between a SFS inner leaf and masonry outer leaf must be classified as non-combustible to be compliant.

Reaction to fire

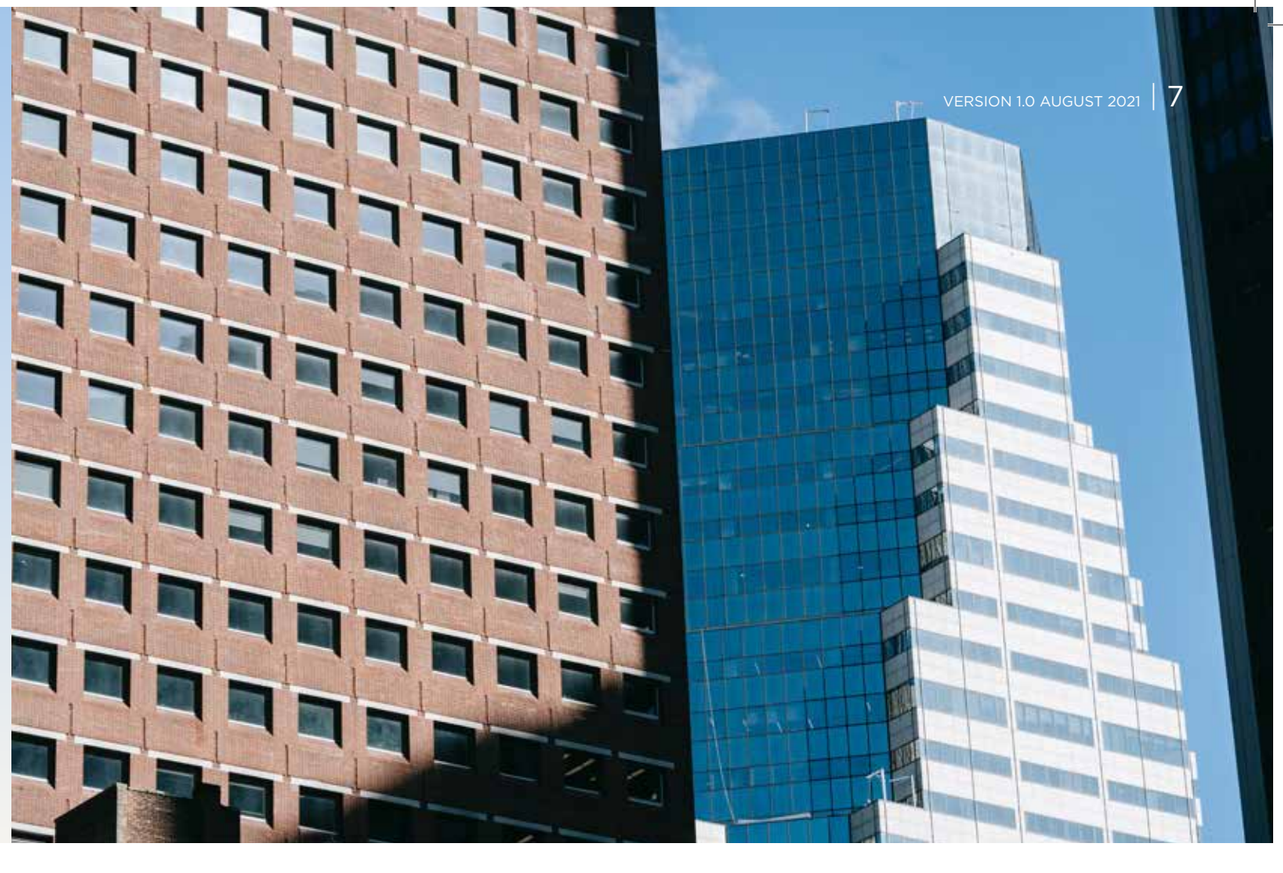
Siderise NC-CT Non-combustible cavity tray has been tested for non-combustibility and classified A2-s1, d0 to EN 13501-1

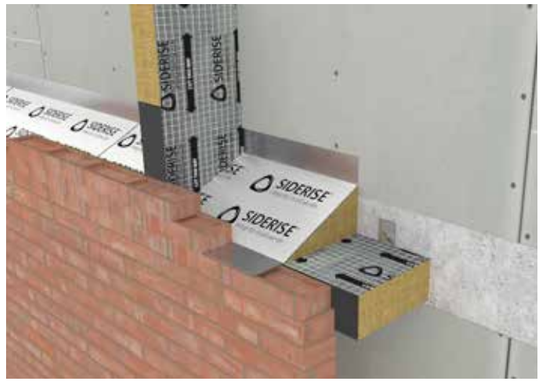
Thermal performance

Thermal conductivity : $\lambda_{90/90}$ = 0.034 W/m.K (EN 12667)

Damp proofing

When used in conjunction with an external masonry wall ensure elements are damp-proofed in accordance with PD6697:2019 – 'Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2'.





INSTALLATION GUIDANCE

For these products to be effective, it is vital to understand what the installation requirements are, and what other considerations there are, such as fire performance, when integrating them with other products, for example cavity barriers and fire stops.

When and where should a cavity tray be installed?

For solid masonry walls, Approved Document C (ADC) to the Building Regulations 2010 – Site preparations and resistance to contaminants and moisture – states that cavity trays should be provided and designed to ensure that water should drain outwards in three different scenarios:

1. Where the downward flow will be interrupted by an obstruction, such as some types of lintel; and
2. Under openings unless there is a sill and the sill and its joints will form a complete barrier; and
3. At abutments between walls and roofs.

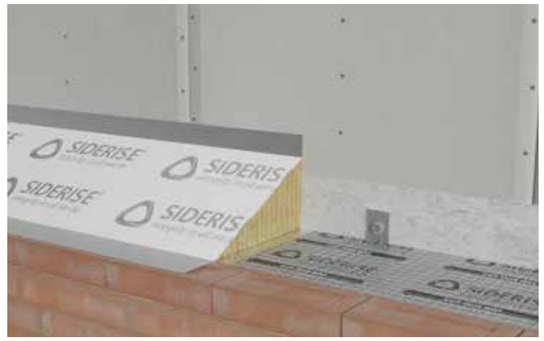
Although ADC states that this guidance is for solid walls, the same principles apply for cavity walls at any point where the cavity between the external and internal leaf may be bridged, for example by cavity barriers, firestops and cavity closures.

ADC refers to BS 5628-3:2001 for more detailed guidance on alternative approaches to ensuring that precipitation is not carried to the inner leaf. However, this standard has been superseded by the 2005 version, which provides more information on the required configuration for cavity trays, stipulating that they "should step down or slope across the cavity not less than 150mm towards the external leaf and, preferably, terminate in a small drip on the face of the wall".

The Approved Document also provides a detailed map of UK zones for exposure to driving rain (Diagram 12 on page 34), and the minimum cavity widths required to deal with the different levels of exposure for various types of insulated masonry wall construction. These range from 50 to 150mm, indicating the scale of different widths that cavity trays may need to cover, and the need for specifiers to take prevailing weather conditions into account early in the design process.

How can I ensure effective installation?

As with any detailing, not only is it important to get the design right, but it is also crucial that cavity trays are installed correctly. If they are incorrectly installed they will not be effective and could even contribute to damp building up within the cavity. Section 6 of the LABC Warranty Technical Manual Version 10 offers detailed guidance on both the design and the installation aspects of cavity trays in 5 different types of external wall construction. The Manual also highlights the fact that cavity trays should be provided over cavity barriers and covers the issue of building movement, which could potentially create problems if cavity trays are unable to accommodate a normal range of movement without loss of integrity.



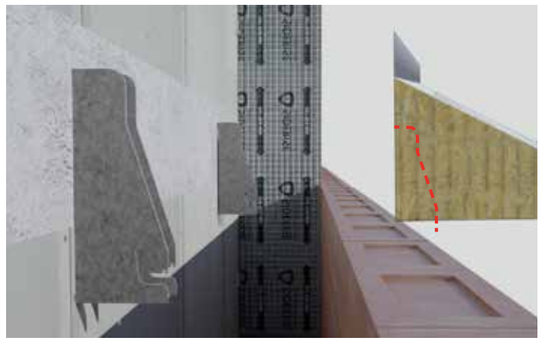
1. Lay the cavity tray on top of the firestop. Apply the Cavity Tray adhesive tape to the back wall. Ensure that the front edge of the Cavity Tray meets the external face of the brickwork and is flat with no folds/damage.

2. Place the abutting cavity tray next to the previous ensuring there are no gaps. Peel the self adhesive backings and apply the jointing overlap and top overlap.

3. For internal corners cut the top overlap straight and the core of the product and bottom overlap at the required angle. Place the corner pieces in position, ensure that both sections meet fully across the width of the cut without gaps. Apply the top overlap to the back wall as before.

4. Use Siderise CT Tape to tape the abutting joint. Apply Siderise DPM Tape to the top side of the Tray where it is within the outer brickwork leaf.

5. The same process should be used for external corners.



6. If there are any penetrations into the cavity tray such as masonry supports, use a sharp knife to carefully notch the cavity tray to accommodate them.

Please note that that the above is a brief summary of the installation process. Full installation training is available via the Siderise Site Services Team and full installation instructions are available at **www.siderise.com**. Please contact us to discuss training.

Technical Specification

Table 1: Product Properties

Property	Value
Reaction to Fire	Classification to EN 13501-1 : 'A2-s1,d0'
Water flow	BBA
Shear strength	EN 1052-4
Flexural bond strength	DD 86-1
Heat Aging	BBA
Adhesion to mortar	BBA
Watertightness – joints	BBA
Bond Strength – joints	BBA
Chemical	The base stone wool is chemically inert. An aqueous extract of the rock wool is neutral (pH7) or slightly alkaline. Resistant to most acids and weak alkaline solutions.
Biological	Vermin and rot proof and does not encourage the growth of fungi, moulds or bacteria.
Effect of water	Non-hygroscopic. Unaffected by humid atmosphere. Must be suitably damp proofed in accordance with codes of practice for masonry constructions.
Compatibility	Compatible with all normal building materials.
Maintenance	No maintenance required unless disturbed.
Handling	Easy to handle but should be treated with due care to ensure material integrity and shape are maintained.
Storage	Store in dry conditions.

Environmental

Siderise NC-CT is environmentally friendly:

- It contains no Volatile Organic Compounds (VOCs) and no very Volatile Organic Compounds (vVOCs).
- Zero Ozone Depleting Potential
- Zero Global Warming Potential
- Recyclable

Additional information

The following information is available for download via the website:

- Standard Details
- Safety Data Sheet
- Installation Instructions

Products available

Siderise offers a number of ancillary products to complement the NC-CT, these include:

Siderise Aluminium Jointing Tape must be used at all joints and intersections:
- CT-JT (120mm wide) Adhesive backed

Siderise DPM Seal must be used used where the Aluminium jointing tape will come into contact with mortar.

Specification support

Siderise offer specifiers support from initial enquiry and technical consultation to project realisation. NBS draft specifications are provided for standard products and applications and can be tailored to suit specific project performance requirements.

Technical & Sales support

Sales support

Sales Team
T: +44 (0) 1656 730833
E: enquiries@siderise.com

Technical support

Technical Services Team
T: +44 (0) 1656 730833
E: technical.services@siderise.com

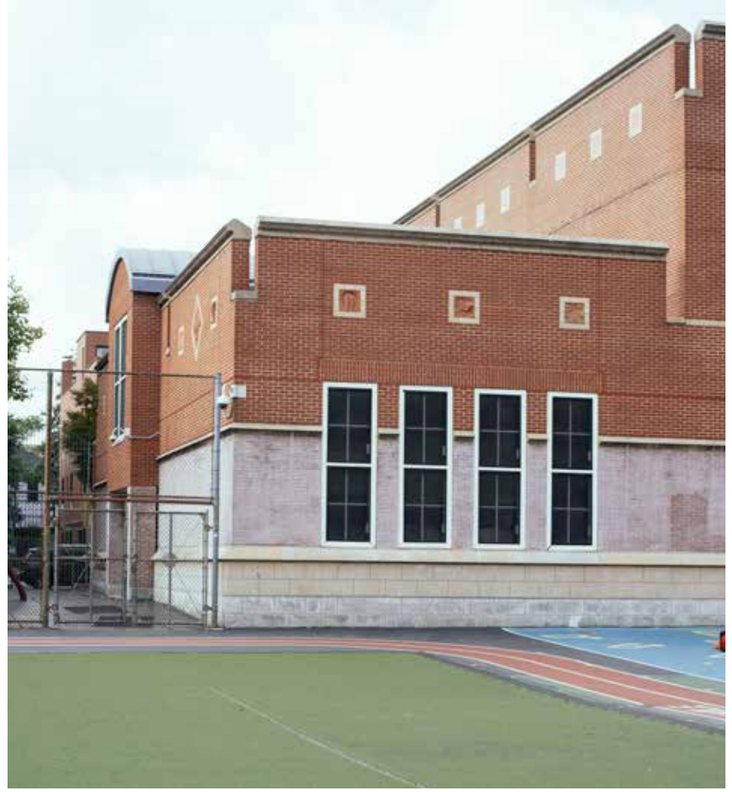
Site Services support

Siderise offer a range of services to contractors and installers. These include toolbox product installation and site installation inspection and reporting (subject to availability and by agreement).

Site Services Team
T: +44 (0) 1656 730833
E: site.services@siderise.com

Context

The information in this datasheet is believed to be accurate at the date of publication. Siderise has a policy of continuous product improvement and reserves the right to alter or amend the specifications of products without prior notice. Siderise does not accept responsibility for the consequences of using the products described outside of the recommendations within this datasheet. Expert advice should be sought where there is any doubt about the correct specification or installation of Siderise products.



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