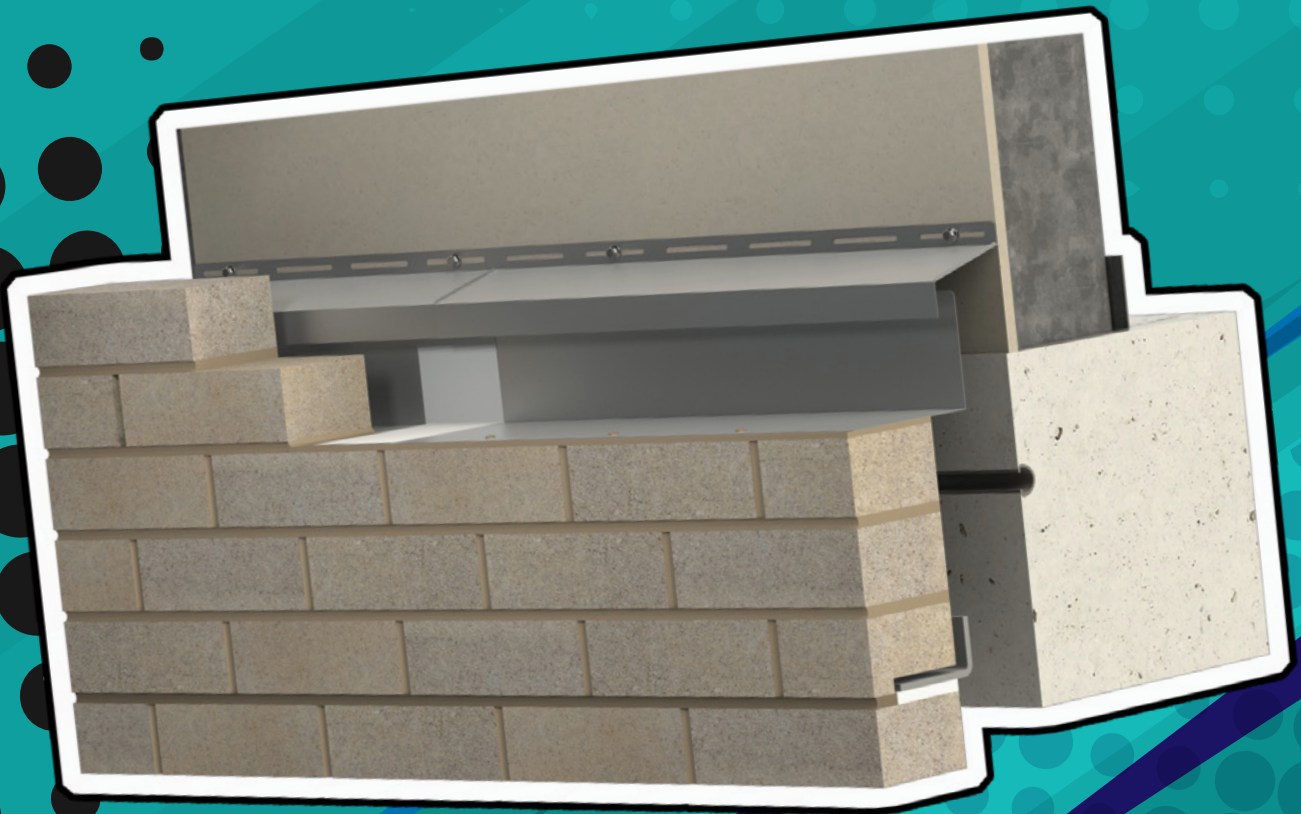


SPECIFYING NON-COMBUSTIBLE CAVITY TRAYS



CONSIDERATIONS

High-rise buildings are susceptible to water ingress through a combination of wind-driven rain, detailing issues, abutment failures, open cavities during construction, which coupled with condensation within the cavities results in vulnerabilities, particularly on the internal leaf of a building.

In larger, more complex cavities, the need to specify the right cavity tray is even more critical to the façade performance, over the lifetime of the building.

CHOOSING THE RIGHT SYSTEM FOR HIGH-RISE / HIGH RISK BUILDINGS – WHAT TO ASK:

1. Is the product A1 non-combustible (protecting your client from retrospective works)?
2. Does it have a design life for the lifetime of the building?
3. Is it thermally broken? (Ensuring the buildings U Values are minimised)
4. Does the tray allow for differential movement between the two leaves? (Reducing stress and cracking on the façade)
5. Is the tray designed to interface with stainless steel masonry support, lintels, wind posts, and wall ties (ensuring no risk of bi-metallic corrosion)?
6. Does the tray cover the entire cavity? (Protecting against abutment / detailing failure, condensation, and rainfall during construction)
7. Is your tray supplied with A1 rated stainless steel weep vents?
8. Does your product use tapes as part of its installation process? (Ensuring a watertight joint)
9. Is the product resistant from damage from failing screws, nails, wall ties etc?
10. Is the system available on a next day service as standard? (Ensuring minimal impact to changes to programme on-site)
11. Does the tray require standard weep vents and isn't reliant on secondary non-standard back up draining?

Following Grenfell, the use of combustible materials in the cavity has been banned in residential and other buildings over 18m. Only A1 or A2 rated materials should be used. Moisture control membranes used for the internal leaf should not be used as part of a cavity tray (other than for closing jointing gaps).



	G-Tray™ / A-Tray™	Keyfix	Metz Tray	Siderise	Visqueen
A1 non-combustible	✓	✓	✓	✗	✗
Design life 60+ years	✓	✓	✓	✓	✓
Thermally broken	✓	✓	✗	✗	✗
Allows for differential movement	✓	✓	✓	✓	✓
No risk of bi-metallic corrosion	✓	✓	✗	✗	✓
Does the tray cover the entire cavity?	✓	✗	✓	✓	✓
A1 rated stainless steel weep vents	✓	✓	✗	✗	✗
Does the product require tapes or mastic for sealing, jointing, or diverting water?	✓	✓	✓	✓	✓
Is the product resistant to sharp point impact damage? (Such as a stainless steel concrete screw)	✓	✓	✓	✗	✓
Is the product (straights and corners) available on a next day service as standard?	✓	✗	✗	✗	✗
Approved as a DPC by BBA or BDA	✗	✗	✗	✗	✗
Doesn't require non-standard weep vents	✓	✗	✓	✓	✓

The above information is taken from third-party accreditation certificates from either the BBA or BDA and is correct as of 17th April 2023 or published webpage.

THE DO'S & DON'TS OF SPECIFYING A CAVITY TRAY FOR HIGH-RISE BUILDINGS:

THE DO'S

1. Pick a two part systems to reduce thermal transfer and allow for differential movement of internal and external leaf.
2. Ensure that the cavity tray covers the entire cavity to prevent cavity flooding, which is the most common case in parapet failures.
3. Future proof your client by only using A1 rated products.
4. Be conscious of other materials within the cavity space, to avoid the risk of bi-metallic corrosion (in the presence of stainless steel and moisture: Zinc & Aluminum when in direct contact will corrode).
5. Ensure that the product can be built on-site, to programme and allow for site tolerances.
6. Read and understand third-party accreditation certificates, such as those provided by the BBA.

THE DON'TS

1. Don't use a single-part system. It increases the risk of thermal transfer and cracking of mortar joints.
2. Don't use partial filled trays that require membranes not tested as a cavity tray to bridge the gap (a slight jointing gap will occur on all products, due to site tolerances, this should be kept to maximum of 25mm).
3. Don't compromise on safety. Only specify A1 rated trays. They are available, and cost no more than A2 equivalents, so why take the risk?
4. Avoid bi-metallic corrosion by only specifying stainless steel material or non-metallic fabric that is A1 rated.
5. Don't just accept that a product has a BBA or a BDA approval. Make sure that you read the certificates in full. It's everyone's responsibility.