VE4 Light Duty Housing Tie

Data sheet
Issue Date:
April 2025

Masonry to Masonry Wall Ties

These products act to secure two leaves of a cavity wall to each other, allowing them to act as one structurally. A cavity tie usually incorporates some mechanism, (usually a change of shape) to discourage moisture moving across the tie. Most cavity ties are available with a dedicated clip to secure insulation (usually in sheet form) within the cavity.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 17/5462

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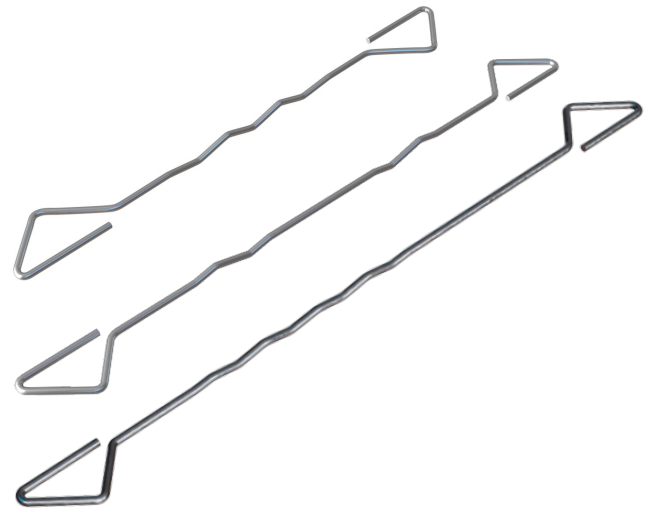

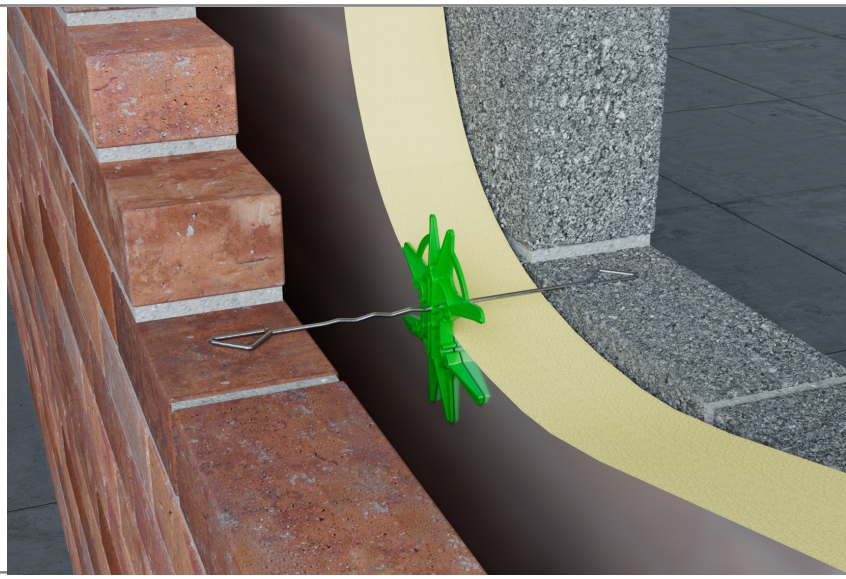

Product

VE4 Light Duty Housing Tie

The VE4 comes in three styles. The 200–250mm ties feature a multi-drip in the middle of the tie, while the 275mm tie has two offset double-drips placed apart, and the 300mm tie has one offset double-drip. The 275mm and 300mm ties are designed for walls with larger cavities, ensuring that the drip sits in the clear cavity. The drip features prevent moisture from traveling across the cavity. All designs allow for installation either way up. The VE4 is classified as a Type 4 tie, permitting a maximum building height of 10 meters. It is suitable for flat sites with a basic wind speed under 25 m/s and an altitude below 150 meters above sea level. Additionally, it is classified as a Type A tie, meaning it is suitable for party or external walls.

CODE	LENGTH	CAVITY	UNITS
VE4-200-STST	200mm	50-75mm	250 Box
VE4-200-50BAG	200mm	50-75mm	50 Bag
VE4-225-STST	225mm	76-100mm	250 Box
VE4-225-50BAG	225mm	76-100mm	50 Bag
VE4-250-STST	250mm	101-125mm	250 Box
VE4-250-50BAG	250mm	101-125mm	50 Bag
VE4-275-STST	275mm	126-150mm	250 Box
VE4-275-50BAG	275mm	126-150mm	50 Bag
VE4-300-STST*	300mm	151-175mm	250 Box
VE4-300-50BAG*	300mm	151-175mm	50 Bag

* The VE4-300 does not currently have BBA approval

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Testing

Tested as a Type 4 (Strength) tie.

300mm, 275mm, 250mm, 225mm & 200mm long stainless steel Wall Ties were tested in tension and compression over a nominal cavity width of 175mm, 150mm, 125mm, 100mm & 75mm respectively in accordance with BS EN 846-6 Methods of Test for Ancillary Components for Masonry. Part 5; Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (Couplet test).

Summary of Declared Values:

Load Direction	Maximum Declared Value at Ultimate load (N)
300mm	
Tension	1370
Compression	500
275mm	
Tension	1640
Compression	380
250mm	
Tension	1580
Compression	480
225mm & 200mm	
Tension	1256
Compression	557

Tested as a Type A (Sound) tie.

The VE4 stainless steel wall ties, measuring 225mm, 250mm, 275mm and 300mm in length were independently tested across working cavity widths of 75mm, 100mm, 125mm, 150mm, and 175mm respectively. The testing evaluated their dynamic stiffness using the methodology outlined in BRE Information Paper IP 3/01: "Dynamic Stiffness of Wall Ties Used in Masonry Cavity Walls: Measurement Procedure."

Length	Cavity	No. (ties/m^2)	Measured dynamic stiffness MN/m^3
300mm	175mm	2.5	3.88
275mm	150mm	2.5	4.0
250mm	125mm	2.5	1.7
250mm	100mm	2.5	3.3
225mm	75mm	2.5	2.77

These tests confirm that VE4 has a dynamic stiffness of <4.8 MN/m^3 when installed at a standard spacing of 2.5 ties/m^2 and are therefore suitable for party walls. They are classed as a Type A tie in Part E. Therefore, our VE4 tie meets the robust detail requirements. Contact the Vista technical team for the measured dynamic stiffness of an individual tie.

Additional Information

BBA Approved light duty housing ties (Agrément Certificate: 17/5462). (Note: The VE4-300 does not currently have BBA approval)
Material – Manufactured from grade 304 stainless steel.
Behaviour in relation to fire – Non combustible (as defined in the national Building Regulations).
Durability – Excellent corrosion resistance and a service life of not less than 60 years.
Compliance – Tested as Type A (sound) and as Type 4 (strength) to BS EN 845-1.