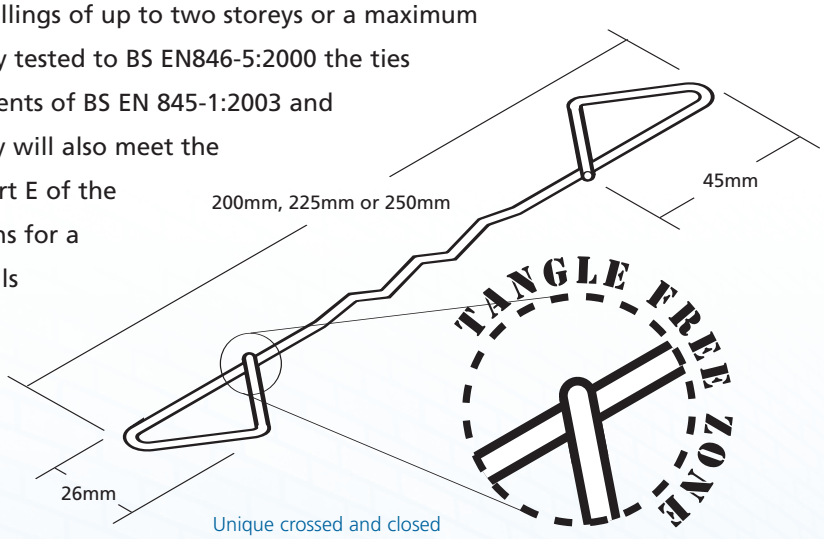
TT4 Light Duty Stainless Steel Cavity Wall Ties

The unique **tangle free** design of TecTies Type 4 Light Duty Tie offers a practical and cost effective solution for masonry cavity walls in box form domestic dwellings of up to two storeys or a maximum 10m in height. Fully tested to BS EN846-5:2000 the ties meet the requirements of BS EN 845-1:2003 and DD140: Part 2. They will also meet the requirements of Part E of the Building Regulations for a Type A in party walls of any height.



Unique crossed and closed end prevents entanglement

Size	Cavity Width
200mm	50mm to 75mm
225mm	76mm to 100mm
250mm	101mm to 125mm

TT4 is a Registered Design. UK Reg. Design No. 3013341

Design Advantages

- Tangle Free - saves time and money
- Supplied in bundles - practical benefits for the bricklayer
- Safety on site
- No Boxes - Minimal packaging waste
- Better Storage particularly during inclement weather

All TecTies cavity wall ties are independantly tested at Ceram Building Technology, a UKAS accredited labatory NO 0013, to the requirements in Standard BS EN 845-1:2003.

TT4 Test Results

Load Description	Maximum Declared Value at Ultimate Load (N)		BS EN 845-1 Requirement	
	225mm	250mm	225mm	250mm
Tension	1040	1241	650	650
Compression	451	570	350	450

For Design Recommendations and Density - refer to DD140 part 2

Part E Building Regulations - TT4 Ties

TT4 Ties meet the requirements of Part E of the Building Regulations for a **Type A** tie in party walls which states that a masonry cavity wall tie can only be used if the measured dynamic stiffness is less than 4.8MN/m³.

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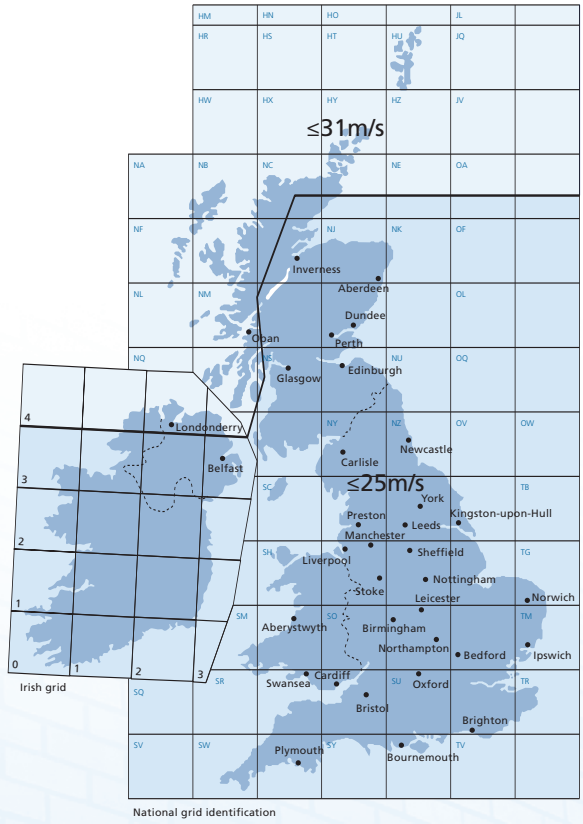
Average wind speeds across the UK



Classification	Field of use Type of structure and frequency of tying	Geographical location
Type 1. (Masonry: Heavy duty)	Suitable for most masonry cavity walls. Not very flexible and should not be specified where large adjustments are likely to be needed during construction, where large differential movements are expected to take place between the leaves, or where very low strength masonry units are in use. Density not less than 2.5 ties per square metre	Any site, anywhere in the British Isles (provision should be calculated for very tall or unusually shaped buildings)
Type 2. (Masonry: General purpose)	Suitable for masonry cavity walls of domestic houses and small commercial buildings of up to three storeys, i.e. not greater than 15m in height, comprising two leaves of brick or blockwork of similar thickness in the range 90mm to 150mm. May be suitable for cavity walls having leaves of disparate thickness or stiffness or for cladding walls in high rise buildings, but should only be used in these situations if shown to be of adequate performance by calculation. Density not less than 2.5 ties per square metre	Flat sites where the basic wind speed is up to 31m/s at an altitude no more than 150m above sea level
Type 3. (Masonry: Basic)	Suitable for masonry cavity walls of domestic houses and small commercial buildings of up to three storeys, i.e. not greater than 15m in height, comprising two leaves of brick or blockwork of similar thickness in the range 90mm to 150mm. May be suitable for cavity walls having leaves of disparate thickness or stiffness or for cladding walls in high rise buildings, but should only be used in these situations if shown to be of adequate performance by calculation. Density not less than 2.5 ties per square metre	Flat sites at an altitude no more than 150m above sea level, where the basic wind speed is up to 25m/s
Type 4. (Masonry: Light duty)	Suitable only for masonry cavity walls, comprising two leaves of similar thickness in the range 90mm to 150mm, in box-form domestic dwellings of up to two storeys and not greater than 10m in height. Not suitable for cavity walls having leaves of disparate thickness or stiffness, for cladding walls of any type or for multi-storey structures, of more than two storeys. Density not less than 2.5 ties per square metre	Flat sites within towns & cities where the basic wind speed is up to 25m/s and altitude is not more than 150m above sea level

Bibliography

BS 5628: 1992 Code of practice for use of masonry - Structural use of unreinforced masonry.

BS 5628-3: 2001 Code of practice for use of masonry - Materials and components, design and workmanship.

DD140-1: 1986 Wall ties - Methods of test for mortar joint and timber frame connections.

DD140-2: 1987 Wall ties - Recommendations for design wall ties.

BS 6399-2: 1999 Code of practice for wind loads.

BS EN 845-1: 2001 Specification for ancillary components for masonry - Ties, tension strips, hangers and brackets.

BS EN 846-5: 2000 Methods of test for ancillary components for masonry - Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (couplet test).

BS EN 10088-1: 1995 Stainless steels - list of stainless steels.

BS EN ISO 6946: 1997 Building components and building elements - Thermal resistance and thermal transmittance - Calculation method.

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