

# Ancon Teplo-BFR

- Low thermal conductivity (0.7W/mK)
- Minimises insulation depth and wall footprint
- Resin fixes into existing masonry/concrete
- Moulded safety end provides excellent mortar bond
- Suitable for new-build and retrofit applications
- Standard lengths suit 75mm-450mm cavities
- Recommended for use with FIS VL 410 C resin, available from Ancon

Plain end for resin anchoring

Unique ribbed shank provides an effective moisture drip

Moulded safety end for building into a – mortar bed

Manufactured from pultruded basalt fibres set in a resin matrix



# Ancon Teplo-BFR

The Teplo-BFR is a low thermal conductivity wall tie manufactured from basalt-fibres that features a plain end for resin anchoring into an existing structure and a moulded safety end for building into a new bed joint.

It is ideal for new-build cavity wall construction where mortar joints do not align e.g. thin-joint blockwork, or in retrofit applications where a new leaf of masonry and insulated cavity is being constructed against a pre-existing masonry or concrete wall. The Teplo-BFR is a 7mm diameter tie, requiring a 10mm drill bit/hole. Available in 16 standard lengths, Teplo-BFR is suitable for cavities from 75mm to 450mm. The design embedment is 70mm in the inner leaf (resin) and 65mm in the outer leaf (mortar). Suitable chemical anchor resin is available from Ancon (FIS VL 410 C).

Tie Type to PD6697 is dependent on the strength of the substrate and a pull-out test on site is recommended. Ancon's comprehensive test programme indicates

Type 1 in 75-150mm cavities; Type 2 in 175-300mm cavities; Type 3 in 325-400mm cavities; Type 4 in 425-450mm cavities (see table for more information).

Teplo wall ties have a thermal conductivity of 0.7W/mK and are excluded from u-value calculations to BS EN ISO 6946, minimising insulation thickness and wall footprint. They are ideal for zero carbon and other low energy construction, including PassivHaus.

Name	Cavity (mm)	Tie Length (mm)	Design Embedment Resin/ Mortar (mm)	Tie Diameter (mm)	Drill bit diameter (mm)	Tie Types to PD6697 in strong and weak substrates			
						Clay Commons Brick (20N/mm <sup>2</sup> )	AAC (3.6N/mm²)	AAC (7.3N/mm²)	C25/C30 Concrete
TEPLO-BFR 210	75	210	70/65	7	10	1	2	2	1
TEPLO-BFR 235	100	235	70/65	7	10	1	2	2	1
TEPLO-BFR 260	125	260	70/65	7	10	1	2	2	1
TEPLO-BFR 285	150	285	70/65	7	10	1	2	2	1
TEPLO-BFR 310	175	310	70/65	7	10	2	2	2	2
TEPLO-BFR 335	200	335	70/65	7	10	2	2	2	2
TEPLO-BFR 360	225	360	70/65	7	10	2	2	2	2
TEPLO-BFR 385	250	385	70/65	7	10	2	2	2	2
TEPLO-BFR 410	275	410	70/65	7	10	2	2	2	2
TEPLO-BFR 435	300	435	70/65	7	10	2	2	2	2
TEPLO-BFR 460	325	460	70/65	7	10	3	3	3	3
TEPLO-BFR 485	350	485	70/65	7	10	3	3	3	3
TEPLO-BFR 510	375	510	70/65	7	10	3	3	3	3
TEPLO-BFR 535	400	535	70/65	7	10	4	4	4	4
TEPLO-BFR 560	425	560	70/65	7	10	4	4	4	4
TEPLO-BFR 585	450	585	70/65	7	10	4	4	4	4

#### Notes:

Regarding substrates tested: Clay Commons Brick (20N/mm<sup>2</sup>) is a standard strength facing brick with a weak shape (large hollows) as a worst case brick; AAC (3.6N/mm<sup>2</sup>) is low strength AAC and indicative of other weak/medium strength substrates; C25/C30 Concrete is indicative of very high strength materials.

Regarding PD6697 Tie Types: Type 1, heavy duty, for all buildings of any height; Type 2, general purpose, and Type 3, basic, for commercial/residential buildings up to 15 metres; Type 4, light duty, for houses up to 10 metres. Geographical location and wind speed restrictions apply. For more information, consult PD6697 or contact Ancon. Tie Types are given for the standard 2.5/m<sup>2</sup> tie spacing. Tie density can be increased to improve performance.

The Teplo range comprises TeploTie, Teplo-BF, Teplo-BFR, Teplo-L and Teplo channel ties.



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