

Block work strength of 10.4N/mm<sup>2</sup>

Unable to use anything below 14?

The screenshot displays the Hilti PROFIS ENGINEERING software interface for masonry design. The central workspace shows a 2D layout of a brick wall with dimensions: a height of 1,000 mm and a width of 1,000 mm. A central section is detailed with dimensions: 245 mm height, 150 mm width, and a 10R radius. A red arrow points from the 'Block work strength of 10.4N/mm<sup>2</sup>' text to the 'Predefined strength' field in the 'BASE MATERIAL' panel, which is set to 10 N/mm<sup>2</sup>. Another red arrow points from the 'Unable to use anything below 14?' text to a notification in the 'NOTIFICATIONS' panel. The notification reads: 'Invalid brick compressive strength! Use a value larger or equal than 14 N/mm<sup>2</sup>.' The 'ANCHOR' panel on the right shows the selected anchor type as 'HIT-HY 270 + HAS-U 8.8' and the size as 'M12'. The 'Embedment depth h<sub>ef</sub>' is set to 0 mm. The 'NOTIFICATIONS' panel also contains several other messages regarding technical data, sleeve requirements, and design results.


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Company:  
 Address:  
 Phone | Fax:  
 Design: | Masonry - 3 Apr 2025 (1)  
 Fastening Point:

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 Specifier:  
 E-Mail:  
 Date: 03/04/2025

**Specifier's comments:**

**1 Input data**

<b>Anchor type and size:</b>	<b>HIT-HY 270 + HAS-U 8.8 M12</b>	
Item number:	2237084 HAS-U 8.8 M12x120 (insert) / 2092828 HIT-HY 270 (mortar)	
Specification text:	Hilti HAS-U 8.8 threaded rod with HIT-HY 270 injection mortar with 50 mm embedment hef, M12, Steel galvanized, Hammer drilled installation per instruction for use,	
Effective embedment depth:	$h_{ef,opti} = 50.0 \text{ mm}$ ( $h_{ef,limit} = 70.0 \text{ mm}$ )	
Material:	8.8	
Approval No.:	Hilti Technical Data	
Issued   Valid:	-   -	
Proof:	Design Method ETAG 029, Annex C	
Stand-off installation:	$e_b = 0.0 \text{ mm}$ (no stand-off); $t = 10.0 \text{ mm}$	
Baseplate <sup>R</sup> :	$l_x \times l_y \times t = 300.0 \text{ mm} \times 300.0 \text{ mm} \times 10.0 \text{ mm}$ ; (Recommended plate thickness: not calculated)	
Profile:	no profile	
Base material:	Brick layout: Stretcher; Brick: UK Dense Concrete $b=100\text{mm}$ (solid brick), Normal weight concrete, L x W x H: 440.0 mm x 100.0 mm x 215.0 mm;	
	$f_{b,v} = 14.00 \text{ N/mm}^2$ ; $E_{wall} = 2,854.32 \text{ N/mm}^2$	
	Mortar: M2,5 - M9; Vertical joints filled: YES; vertical: 6.0 mm; horizontal: 6.0 mm	
	Installation condition: Dry; Use condition: Dry;	
	Cleaning: compressed air	
	Temp. short/long: 40/24 °C	

denotes shear strength? Suggesting the compressive strength is 98N/mm<sup>2</sup>? Although 14N/mm<sup>2</sup> was inputted for compressive strength

based on a rigid baseplate assumption.

