Re: Simpson Strong-Tie Titen HD® Heavy-Duty Screw Anchor Installed into Hollow-Core Concrete Slabs

To Whom It May Concern:

The table below provides tension and shear capacities for the Simpson Strong-Tie Titen HD® heavy-duty screw anchor when installed into hollow-core concrete panels. Testing was performed according to ASTM E488-15, Strength of Anchors in Concrete Elements.

### Tension and Shear Loads for Titen HD® in Hollow Core Concrete Panel

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Size Dia. (in. (mm))</th>
<th>Drill Bit Dia. (in. (mm))</th>
<th>Min. Embed Depth (in. (mm))</th>
<th>Critical Edge Dist. (in. (mm))</th>
<th>Critical Spacing (in. (mm))</th>
<th>Tension Load $f'_c \geq 5,000$ psi (34.5 Mpa)</th>
<th>Shear Load $f'_c \geq 5,000$ psi (34.5 Mpa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THDB25</td>
<td>1/4 (6.4)</td>
<td>1/4 (6.4)</td>
<td>1 1/4 (32)</td>
<td>6 (152)</td>
<td>6 (152)</td>
<td>1,900 lbs. (8.5 kN)</td>
<td>475 lbs. (2.1 kN)</td>
</tr>
<tr>
<td>THD37</td>
<td>3/8 (9.5)</td>
<td>3/8 (9.5)</td>
<td>1 1/4 (32)</td>
<td>7 (178)</td>
<td>7 (178)</td>
<td>2,120 lbs. (9.4 kN)</td>
<td>530 lbs. (2.4 kN)</td>
</tr>
</tbody>
</table>

1. The allowable stress design load data presented in this table is outside of the scope of the current IBC. It may be permitted for non-IBC applications.
2. The allowable loads listed are based on a safety factor of 4.0.
3. The minimum concrete flange thickness over the open cores is 1-1/4 in.
4. The minimum specified compressive strength of the concrete, $f'_c$, is 5,000 psi (34.5 MPa).
5. The installed end of the anchor may extend into the panel cavity depending upon screw length, fixture thickness, and face thickness.

![FIGURE 1: Titen HD® IN CELL OF HOLLOW CORE PANEL](image)

The information in this letter is valid until **05/31/2021** when it will be re-evaluated by Simpson Strong-Tie. Please visit strongtie.com for additional pertinent information. If you have questions or need further assistance regarding this matter, please contact the Simpson Strong-Tie engineering department at 800.999.5099.

Sincerely,

SIMPSON STRONG-TIE COMPANY INC.