1. General Notes:

1.1. BASF HP+™ Wall System - FR Series, utilizes WALLTITE® HP+ closed cell spray polyurethane foam in 24" o.c. stud cavities with 5/8" GP Densglass sheathing for use in buildings constructed in accordance with the IRC for light-frame steel construction and the IBC for Type V light-frame construction.

1.2. BASF HP+™ Wall System - FR Series, is used to provide:

   1.2.1. Lateral load resistance (wind and seismic).
   1.2.2. Transverse load resistance (positive and negative wind pressure).
   1.2.3. Resistance to uplift and gravity loads in single top plate applications.

2. Conditions of Use

2.1. BASF HP+™ Wall System - FR Series, shall only be used with WALLTITE® HP+.

2.2. When not used as wall bracing, walls shall be braced by other materials in accordance with the applicable code.

2.3. Shear, axial and transverse loads shall not exceed those shown in the table below.

2.4. All panel edges shall be supported by wall framing or solid blocking a minimum of 2" (51 mm) nominal thickness in the least dimension.

2.5. Refer to the quality assurance (QC) procedures and installation manual for construction means and methods support.

2.6. Contact BASF for additional information regarding means and methods.

3. Fire Performance

3.1. BASF HP+™ Wall System - FR Series has been tested and approved for use in a one-hour fire rated assembly. For complete construction details, See UL Directory, Design No. V306.

3.2. BASF HP+™ Wall System - FR Series has been tested and approved for use in a NFPA 285 assembly. For complete construction details, See UL Directory, Design No. FWFO.EWS0025.


**DrJ Design Detail**

4. **Installation**

4.1. BASF HP+™ Wall System - FR Series, shall be installed in accordance with the manufacturer’s published installation instructions and this design detail. In the event of conflict between the manufacturer’s installation instructions and this Design Detail, the more restrictive shall govern.

4.2. BASF HP+™ Wall System - FR Series, shall be installed in a workmanlike manner subject to industry-accepted tolerances. WALLTITE® HP+ spray foam applicator must be BASF Quality Assurance Training Program certified.

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**Wood Stud Assembly**

1. Water Resistive Barrier
2. 5/8” Type X exterior gypsum panels fastened with 1-5/8” Type S screws at 8” o.c. at panel edges and 8” at intermediate framing members
3. Minimum 2x4 wood framed wall with studs spaced 24” o.c., single or double top plate
4. 3/4”, 1”, or 1-1/2” BASF Walltite® Closed Cell Spray Foam
5. Cavity insulation, as required
6. Interior Gypsum wall board fastened with #6 type W or S screws 1 1/4” long spaced 16” o.c. at panel edges and in the field

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**Steel Stud Assembly**

1. Water Resistive Barrier
2. 5/8” Fire-Rated exterior gypsum panels fastened with 1-5/8” Type S screws at 8” o.c. at panel edges and 8” at intermediate framing members
3. Minimum 33 mil, 2x4 nominal size steel wall with studs spaced 24” o.c., single top plate
4. 3/4”, 1”, or 1-1/2” BASF Walltite® Closed Cell Spray Foam
5. Cavity insulation, as required
6. Interior Gypsum wall board fastened with #6 type W or S screws 1 1/4” long spaced 16” o.c. at panel edges and in the field.
5. Prescriptive IRC Bracing Applications – Equivalency Factors

5.1. BASF HP+™ Wall System - FR Series may be used to brace walls of buildings as an alternative to the Continuous Wall Bracing provisions of IRC Section R602.10.4, when installed in accordance with this Design Detail.

5.2. Required braced wall panel lengths for BASF HP+™ Wall System - FR Series shall be as determined by IRC Table R602.10.3(1) and R602.10.3(3), including all footnotes. Bracing lengths in these tables for Method CS-WSP shall be multiplied by the equivalency factor listed in Table 2.

<table>
<thead>
<tr>
<th>Wall Assembly</th>
<th>Interior Gypsum Sheathing (16:16)</th>
<th>Maximum Stud Spacing (in.)</th>
<th>Fastener¹</th>
<th>Fastener Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
<td>GWB &amp; 3/4” WALLTITE® HP+</td>
<td>Yes</td>
<td>24” o.c.</td>
<td>1-5/16&quot; Type S Screws</td>
</tr>
<tr>
<td></td>
<td>GWB &amp; 1” WALLTITE® HP+</td>
<td></td>
<td></td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>GWB &amp; 1-1/2” WALLTITE® HP+</td>
<td></td>
<td></td>
<td>0.85</td>
</tr>
</tbody>
</table>

For St: 1” = 25.4 mm
1. Fastener heads shall be installed flush to the surface of the sheathing.
2. Multiply the bracing lengths in IRC Table R602.10.1.2(1) and R602.10.1.2(2) Method CS-WSP (continuous sheathing) as applicable, including all footnotes, by the factors shown here, to establish the required bracing length.
3. Valid for single or double top plate HP+™ Wall System - FR Series installations.

Table 2: BASF HP+™ Wall System - FR Series Braced Wall Line Length Equivalency Factors