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# InfoFAX

"Information For GAF Certified Contractors...  
To Help Build Your Business and Avoid Hassles"

**TO:** GAFMC Certified Contractors – Low Slope

**FROM:**  
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## Changes to Factory Mutual Loss Prevention Data Sheet 1-29... What They Mean to You

<p><b>What is "Loss Prevention Data Sheet 1-29"?</b></p>	<p>It is a publication titled: <b>Roof Deck Securement and Above-Deck Roof Components</b>. It provides recommendations for the proper securement of various roof decks to supporting members, and for the proper design and installation of above-deck components, including roof covers, insulation, vapor retarders, fasteners, and recover assemblies.</p>
<p><b>How Has This Data Sheet Changed?</b></p>	<ul style="list-style-type: none"> <li>• Prior to January, 2006, 1-29 instructed the designer/installer to increase the fastening of insulation for fully adhered systems on steel decks in the perimeter and corner areas by 50% and 75%, respectively to provide wind uplift resistance.</li> <li>• In the current 1-29, issued in January, 2006, this calculation is no longer allowed for "fully adhered" membranes where the field of the roof needs to have a Class I-90 or higher. Instead, <b>the roofing system must have the specific wind rating found in Table 1 in the document for the perimeter and corner areas</b>. For example, for a Class I-90 rating, the corner areas must have testing data that provides 225 psf of uplift pressure resistance.</li> <li>• In addition, for Class I-60 and Class I-75 ratings, 1-29 increases the # of insulation fasteners required in the corner areas to a 100% increase over the number of fasteners used in the field of the roof.</li> </ul>
<p><b>What Roofing Systems Are Affected?</b></p>	<p>These changes apply to "<b>fully adhered</b>" membranes on a steel deck, where the membrane is installed to mechanically attached insulation with or without a cover board, including:</p> <ul style="list-style-type: none"> <li>• fully adhered single ply membranes</li> <li>• hot mopped built-up and modified bitumen membranes</li> <li>• torch applied modified bitumen membranes</li> <li>• cold process applied asphaltic membranes</li> <li>• self-adhering modified bitumen and single ply membranes</li> </ul>
<p><b>What About Mechanically Attached Systems?</b></p>	<p>Increasing the perimeter and corner attachment is still allowed for the following systems:</p> <ul style="list-style-type: none"> <li>• mechanically attached single ply</li> <li>• built-up roofing system or modified bitumen roofing system with a mechanically attached base sheet.</li> </ul>
<p><b>Can I Still Qualify for an FM Class I-90 Over a Steel Deck With a Fully Adhered Roofing System?</b></p>	<p>To meet most local building codes (e.g., ICC)... the need to provide wind uplift resistance in accordance with FM Standard 4450 (the test standard) can be met. Local building codes require that the perimeter and corner areas be attached in compliance with the wind design load method ASCE 7.</p> <p>If the building is insured by Factory Mutual or if you must meet the requirements of Loss Prevention Data Sheet 1-29, probably not... recent review of Factory Mutual listings for all manufacturers found only a single listing that provided 225 psf of uplift pressure resistance – which is the level now required for the corner area!</p>
<p><b>Should a Manufacturer Write System Certification Letters for Test Results of 90 psf? (where a specifier has requested the roofing system meet a I-90)</b></p>	<p>Because installation of a roofing system to Factory Mutual guidelines may imply compliance with the Loss Prevention Data Sheets, it is deceptive to state that a fully adhered roofing system on a steel deck complies with the requirements for an FM I-90 unless the manufacturer clearly states that the perimeters and corners should be enhanced in accordance with ASCE 7 or has the extraordinarily high uplift values for the perimeters and corners to meet 1-29.</p>
<p><b>Is This a GAF Issue or an Industry-Wide Issue?</b></p>	<p>These changes apply to all roofing systems... so <b>NO</b>, it is not specific to GAF. These changes affect all manufacturers who offer built-up roofing system, modified bitumen roofing systems, or fully adhered single ply systems installed over insulation on a steel deck.</p>
<p><b>What About Projects Where the Architect or Specifier Requires FM Wind Performance on a Steel Deck?</b></p>	<p>Unfortunately, there are probably a significant number of fully adhered roofing system specifications for steel decks which require compliance to Factory Mutual and the Loss Prevention Data Sheets that are <b><u>NOT possible</u></b>. Please contact your GAF Regional Contractor Services Manager or our 411 Technical Hot Line at 800-ROOF-411 to find out what options you may have to meet your roofing needs.</p>