



Issued: 04/02/2010  
Re: Technical Bulletin – Fastener Requirements for ROCKWOOL Insulation Q&A

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## DISCUSSION

Q: What are the FM fastening rates for MONOBOARD® PLUS?

A: ROCKWOOL has various FM approvals for MONOBOARD® PLUS. For most mopped and torched modified bitumen and 3-ply BUR assemblies six fasteners per 4' x 4' board are required for an FM 1-75 approval. For select mopped and torched modified bitumen assemblies eight fasteners per 4' x 4' board are required for an FM 1-90 approval.

Q: What are the FM fastening rates for TOPROCK® DD PLUS?

A: For mopped and torched modified bitumen and 3-ply BUR assemblies four fasteners per 4' x 4' board are required for an FM 1-90 approval.

Q: Are MONOBOARD® and TOPROCK® DD approved by FM as a cover board?

A: Yes, plain and bitumen faced MONOBOARD® and TOPROCK® DD are approved by FM as cover boards in most assemblies.

Q: Can MONOBOARD® PLUS and TOPROCK® DD PLUS be installed under single ply membranes?

A: Most single ply membranes are not compatible with bitumen and therefore, MONOBOARD® PLUS and TOPROCK® DD PLUS should not be installed under these membranes unless specifically authorized by the membrane manufacturer.

Q: What is the pre-securement requirement for ROCKWOOL MONOBOARD® and TOPROCK® DD insulation?

A: The pre-securement procedure requires a minimum of two FM Approved fasteners per 4' x 4' board with the insulation secured to the deck. For systems with a vapor retarder, the pre-securement procedure requires a minimum of eight fasteners per 4' x 4' board. Corner and perimeter enhancements are not required for preliminary secured insulation.

Q: What are the FM fastening rates for ROCKWOOL insulation over a concrete deck?

A: In most systems MONOBOARD® and TOPROCK® DD may be bonded via mopped or poured hot bitumen to a properly primed deck with approved bitumen applied at a rate of 1.2kg/m<sup>2</sup> (25 lb/sq). Please refer to FM RoofNav for details on mechanically attached insulation assemblies.

Q: If I mechanically install two layers of TOPROCK® DD, do I have to fasten the first layer to secure it?

A: It is acceptable to use multiple layers of ROCKWOOL stone wool insulation; the first layer can be loose laid provided that the insulation is mechanically secured through all layers to the roof deck. ROCKWOOL requires that when more than one layer is used that the joints are staggered.



Q: How many fasteners does a 4' x 8' sheet of TOPROCK® DD require vs. the same size sheet of ISO?

A: The FM 1-90 fastening rate for TOPROCK® DD in adhered systems is four fasteners per 4' x 4' board. Typical fastening rates for Polyisocyanurate insulations are twelve fasteners per 4' x 8' board or six fasteners per 4' x 4' board for FM Approvals 1-90 assemblies.

Q: What is the fastening pattern for ROCKWOOL MONOBOARD® and TOPROCK® DD insulation?

A: ROCKWOOL requires that MONOBOARD® and TOPROCK® DD be fastened using FM Approved fastener patterns as defined in FM Global Property Loss Prevention Data Sheet 1-29. The fastening patterns for four, six, eight and twelve fasteners are shown below:

