



City of Raymore

Building Inspection Division
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Code Interpretation: 2012 IRC Interpretation 02

Date: Updated 1/8/2014

Code/ Edition: 2012 International Residential Code (IRC)

Section(s): Chapter 4 Section 403

Subject Imix XS or Dramix (ICC, ESR-1726 or ESR-3226) use in the construction of concrete footers and concrete slabs.

Question: : Imix XS (ICC, ESR-1726 @ www.icc-es.org or ICC, ESR-3226 @ www.icc-es.org) an acceptable alternative to steel reinforcing to minimize shrinkage and temperature cracking of structural plain normal-weight concrete footings and structural plain normal weight concrete slabs supported directly on the ground?

Answer: Yes

Commentary: Imix and Dramix steel fiber admixtures are permitted whenever steel reinforcement is not required for structural reasons in residential footing and slab design. In many cases the steel reinforcement we see in footings is added not for structural reasons but due to shrinkage and cracking. The IRC identifies steel reinforcement to be required in footings in Seismic D earthquake zones or slabs-on-ground with turn down footings. Therefore, for steel reinforcement to be required in a footing or slab, the design would likely be an engineered footing design. Generally, the steel seen in residential footing construction is more a standard practice rather than a requirement.

The foundation wall is a different matter. The IRC has many situations in which steel reinforcement would be required and because of that, the Imix or Dramix steel fiber would not be an alternative to the steel reinforcement in the foundation wall design.

So the question that needs to be asked or verified regarding the footing or slab design and construction, is steel reinforcement required for structural reasons? If the answer is no then the steel fibers can be used. For more information on the use and application of Imix or Dramix steel fibers, review the ICC Evaluation reports available on ICC's website above.

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