

ANCHORING SYSTEMS

Concrete Anchors Designed to Meet 2006 IBC



Building Codes Are Changing – New Anchor Designs Now Required

Most states across the country have now adopted the 2006 International Building Code (IBC) and many jurisdictions within each state are now enforcing the new code. As a result, engineers and designers are increasingly being required to specify anchors designed and tested to meet the new requirements of the code. The 2006 IBC requires that Ultimate Strength Design methodology be used when designing structural anchorages within buildings and other structures. This affects how and when post-installed concrete anchors are specified and what products will be suitable for use.

When designing concrete anchorages, designers are now being required to consider, among other things, whether conditions exist that may cause the concrete to crack. If it's determined such conditions do exist, anchors designed and tested for use in cracked concrete must be specified. If it's determined there is no risk of concrete cracking, the designer may choose to specify anchors approved for use in uncracked concrete. In either case, Ultimate Strength Design methodology is required as part of the 2006 IBC.

Common conditions that cause cracking of concrete:

- Concrete in tension – such as in the underside of a slab
- Concrete elements located in areas prone to seismic activity
- Other factors that contribute to cracking include:
 - External short term loads (such as high winds)
 - Temperature variations
 - Shrinkage during curing



Simpson Strong-Tie Anchor Systems® has, for years, been at the forefront of developing anchors for use in both cracked and uncracked concrete. In fact, one of our test labs was the first lab in the U.S. to be accredited in testing on cracked concrete. We have devoted years of research, product development and extensive testing in the evolution of our cracked and uncracked concrete anchors. With our technical expertise and support you can rely on us to be the trusted source for concrete anchors.

