

5 Products designed and tested for cracked concrete



Most states across the country have now adopted the 2006 International Building Code (IBC). As a result, engineers and designers are increasingly being required to specify anchors designed and tested to meet the new requirements.

Designers are now being required to consider 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.

Simpson Strong-Tie Anchor Systems® has devoted years of research and extensive testing to develop these products for cracked and uncracked concrete.



SET-XP™
Epoxy-Tie® anchoring adhesive

SET-XP™ anchoring adhesive

Code listed: ICC-ES ESR-2508

- High-strength epoxy adhesive tested to 2006 IBC and ICC-ES AC308 cracked-concrete requirements
- Code listed for installation with rebar and threaded rod in cracked and uncracked concrete
- Tested for 1¼" minimum edge distance
- Easy, standard hole-cleaning procedure
- Cures to a dark teal color for easy identification as a 2006 IBC cracked-concrete product



Titen HD® anchor
U.S. Patent
5,674,035 & 6,623,228

Titen HD® screw anchor

Code listed: ICC-ES ESR 2713 (concrete)
ICC-ES ESR 1056 (masonry)*

- Heavy-duty screw anchor tested to 2006 IBC and ICC-ES AC193 cracked-concrete requirements
- Code listed for use in cracked and uncracked concrete
- 'Category 1' anchor
- Fast and easy installation
- Tested for 1¼" minimum edge distance
- Perfect for overhead installations and racking
- Installed with standard, non-metric drill bits – no special drill bit required
- Standard hole-cleaning procedure
- Removable anchor

* The Titen HD® anchor is also recognized in ESR-1056 for installations in uncracked grout-filled concrete masonry tested to 2006 IBC and ICC-ES AC106.



Strong-Bolt™
wedge anchor



Tri-segmented clip

Strong-Bolt™ wedge anchor

Code listed: ICC-ES ESR-1771

- Expansion anchor tested to 2006 IBC and ICC-ES AC193 cracked-concrete requirements
- Code listed for use in cracked and uncracked concrete
- ½" and ¾" dia. are 'Category 1' anchors
- Tri-segmented clip with undercutting embossments for superior performance
- Perfect for mechanical equipment and overhead anchorage applications

Cracked-Concrete Solutions

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IXP™ anchor
Patent Pending



SET-XP™
Epoxy-Tie® anchoring adhesive

IXP™ anchor with SET-XP™ anchoring adhesive

ICC-ES pending

- Torque-controlled adhesive anchor
- Tested to 2006 IBC and ICC-ES AC308 cracked-concrete requirements
- 'Category 1' anchor
- Greater load capacity and shallower embedment depth than threaded rod under some adverse conditions
- Uniquely designed for high-strength performance in cracked-concrete applications
- Easy, standard hole-cleaning procedure
- Installed with standard, non-metric drill bits – no special drill bit required



Torq-Cut™
self-undercutting anchor
U.S. Patent 7,357,613



Torq-Cut™ undercut anchor

ICC-ES pending

- Self-undercutting anchor – no secondary undercutting operation required
- Our highest strength mechanical anchor
- Tested to 2006 IBC and AC193 cracked-concrete requirements
- 'Category 1' anchor
- Excellent for resisting vibratory and seismic loading
- Installed with standard, non-metric drill bits - no special undercutting drill bits required
- Standard hole-cleaning procedure

Simpson Strong-Tie® Product Comparison

This chart shows which Simpson Strong-Tie® anchors are code-listed for cracked-concrete applications under the 2006 IBC.

Listed for cracked-concrete applications	Replaces
SET-XP™ adhesive	SET Epoxy-Tie® adhesive
	ET Epoxy-Tie® adhesive
	Acrylic-Tie® adhesive*
Strong-Bolt™ anchor	Wedge-All® anchor
Titen HD® anchor	Titen HD® anchor

* Acrylic-Tie adhesive is currently being evaluated for listing for cracked-concrete application.

Competitive Product Comparison

This chart shows which Simpson Strong-Tie® anchors may be suitable as a substitute for a competitor's cracked-concrete listed product under the 2006 IBC.

Simpson Strong-Tie® anchors listed for cracked-concrete applications	Competitor's product listed for cracked-concrete applications
SET-XP™ adhesive	Hilti HIT RE-500-SD
Strong-Bolt™ anchor	Hilti Kwik Bolt TZ
	ITW Red Head Trubolt+
	Powers Power-Stud+ SD1 or SD2
Titen HD® anchor	Powers Wedge-Bolt+

Product comparisons are of the same product type and are for general purposes. Product substitutions must be approved by the engineer of record and local building department or regulatory agency.

This flier is effective until January 31, 2011, and reflects information available as of January 1, 2009. This information is updated periodically and should not be relied upon after January 31, 2011; contact Simpson Strong-Tie for current information and limited warranty or see www.simpsonanchors.com.