

Not Approved for Sustained Tensile-Load (hanging from a ceiling) Overhead Applications

For miscellaneous anchorage requiring an **ultimate pullout strength of 5000 pounds**. Field pullout tests will be required for loads greater than 5000 pounds. Chemical anchorage will be required on all horizontal applications.

Federal aid projects require that the regulation, U.S. Code of Federal Regulations 23CFR635.410, the "Buy American Steel Regulation", be followed. This is outlined in Special Provision (1601) SOURCE OF SUPPLY AND QUALITY, see special provisions: <http://www.dot.state.mn.us/tecsup/prov/pdf/sp2005.pdf>

Anchorage on this list may or may not be made in the U.S.A. It is the Contractor's responsibility to ascertain the country of origin before installing or purchasing these anchorages.

<u>Manufacturer</u>	<u>Product</u>	<u>Type</u>	<u>Min. Diameter, Min. Embedment Depth, & Notes</u>
BASF Building Systems	Emaco Grip	Cement Based	
Conspec	Spec-Bond 201	Adhesive/Epoxy	7/8" dia., 3-1/2" length
Dayton Superior	Sure-Grip	Adhesive/Epoxy	
	Sure Anchor J-51	Adhesive/Epoxy	1/2" dia., 4.5" embedment
DFS Inc.	Wedge Anchor	Mechanical Anchor	7/8" dia., 3-1/2" length
Dyna Grout	Dyna Grout	Grout	
Hilti Fastening	HY-150	Adhesive/Acrylic	1/2" dia., 4.25" embedment
	HVA Adhesive System	Vinyl Urethane - Adhesive System	5/8" dia., 5" embedment
	Kwik Bolt	Mechanical Anchor	1/2" dia., 4" embedment
	HIT RE500	Adhesive/Epoxy	3/8" dia., 3-3/8" embedment
	HIT-ICE	Adhesive System	3/8" dia., 2" embed/low temp
	HIT HY 150 MAX	Adhesive System	3/8" dia., 2-1/4" embedment
	RSE DOT	Adhesive System	3/8" dia., 3-3/8" embedment
ITT Philipps Drill	Red Head Anchors	Mechanical Anchor	1/2" dia., 4" embedment
ITW Ramset/Redhead	Epcon Granite 5	Adhesive/Epoxy	3/8" dia., 3 3/8" embedment
	Epcon System Acrylic 7	Adhesive/Acrylic	1/2" dia., 4.5" embedment
Kelken Construction Systems, Inc.	Keligrout	Adhesive/Resin	1/2" dia., 5" embed/low temp
	Keligrout 101-P	Adhesive/Resin	1/2" dia., 5" embed/low temp
Liebig International	Liebig Safety Bolts	Mechanical Anchor	1/2" dia., 4" embedment
MKT Fastening	Liquid Roc 300 Capsules	Polyester Capsule	3/8" dia., 3-3/8" embedment
	Liquid Roc 500 Low Odor	Adhesive/Epoxy	3/8" dia., 3-3/8" embedment
Polygem	Polybac 1257	Adhesive/Epoxy	1/2" dia., 4.5" embedment
Powers Fasteners, Inc.	Power-Fast Standard Set	Adhesive/Epoxy	1/2" dia., 4.5" embedment
	AC 100 Plus	Adhesive System	3/8" dia., 2-1/2" embedment
	Power-Stud	Mechanical Anchor	1/2" dia., 4" embedment
Prime Resins	Speed Bond #1	Adhesive/Epoxy	5/8" dia., 6 1/4" embedment
	Fastlane	Adhesive/Epoxy	5/8" dia., 6 1/4" embedment
Sika Corporation	Sikadur DOT-SP13	Adhesive/Epoxy	1/2" dia., 5" embedment
	Sikadur Fast Injection Gel	Adhesive/Epoxy	1/2" dia., 5" embedment

Simpson Strong-Tie	Epoxy Tie (ET)	Adhesive/Epoxy	5/8" dia., 5" embedment
	Epoxy Tie Fast Cure (ETF)	Adhesive/Epoxy	5/8" dia., 5" embedment
	Set Adhesive (SET)	Adhesive/Epoxy	5/8" dia., 5" embedment
	Acrylic Tie (AT)	Adhesive/Acrylic	3/8" dia., 3.5" embedment
	Wedge-All Expansion Anchor	Mechanical Anchor	3/4" dia., 3-3/8" embedment
Unitex	Pro-Poxy 300	Adhesive/Epoxy	1/2" dia., 4.5" embedment
	Pro-Poxy 300 Fast	Adhesive/Epoxy	1/2" dia., 4.5" embedment
Universal Fastenings	Thunderbolts	Mechanical Anchor	1/2" dia., 4" embedment
US Anchor Corporation	HS-200	Adhesive/Epoxy	3/8" dia., 3-1/2" embedment Use when temp below 60 ⁰ F., & allow 48 hours before loads.
W.R. Meadows, Inc.	REZI-WELD Gel Paste	Adhesive/Epoxy	3/4" dia., 7-1/2" embedment