

CHEMICAL ANCHOR SYSTEMS

Specification Reference: 901.05

SM Material Code: 506M00020

This list documents the approval of chemical systems for anchoring deformed steel rebar or grouting load transfer dowels. These chemical anchor systems are approved for pullout loads on deformed rebar which do not exceed the yield requirement for the corresponding rebar size of grade 60 (420) steel. These systems are applicable for rebar sizes not exceeding ENG. #7 (METRIC #22). If the rebar exceeds size ENG. #7 (METRIC #22), the manufacturer shall provide a type B certification for the pullout load of the specified rebar. Testing will be in accordance with ASTM E 488.

Systems shall be installed in accordance with the manufacturer's instructions. Horizontal installations of rebar or dowels require special consideration for proper retention of the material in the hole. The following spacing and edge distance requirements shall be met.

Embedment (E)	Spacing Between Anchors min. (S)	Edge Distance min. (M)
<6.0d	2.00E	1.00E
6.0d to ≤8.0d	1.50E	1.00E
>8.0d	1.00E	0.75E
(d = diameter of rebar)		

If the above requirements are not satisfied, contact the Materials and Tests Division.

It should be noted that FHWA Technical Advisory T5140.34 issued on January 16, 2018 strongly discourages the application of anchor systems utilizing adhesives for permanent sustained tension applications or overhead applications. If chemical anchors are to be used in either of these applications, the design and installation must comply with all of the requirements set forth in the technical advisory.

Source Code	Manufacturer Product Name	Approval Number	Comments
9540	ADHESIVES TECHNOLOGY CORP----- ASF - 1000 FAST CURE ACRYLIC ADHESIVE 10.1 & 28 oz Cartridge Systems	W168050	
9540	ADHESIVES TECHNOLOGY CORP----- ULTRABOND ASF-2000 28 oz. Cartridge Systems	W218950	
9540	ADHESIVES TECHNOLOGY CORP----- ULTRABOND EPX-3CC EPOXY ANCHORING SYSTEM A9-EPX3CC, A22-EPX3CC & A53-EPX3CC Cartridge Systems	W208050	
9540	ADHESIVES TECHNOLOGY CORP----- ULTRABOND HS - 1CC EPOXY ANCHORING SYSTEM A9-HS1CC, A22-HS1CC & A53-HS1CC Cartridge Systems	W188050	
9540	ADHESIVES TECHNOLOGY CORP----- ULTRABOND HYB-2CC 10. 14 & 28 oz. Cartridge Systems	W248050	
9540	ADHESIVES TECHNOLOGY CORP----- ULTRABOND 1- ANCHORING EPOXY 21.2oz Cartridge Systems	W228050	
9540	ADHESIVES TECHNOLOGY CORP----- ULTRABOND 1300 - Dowling Epoxy	W218952	
9540	ADHESIVES TECHNOLOGY CORP----- CRACKBOND 2100 MV (Formulation update November 2023)	W078050	
9540	ADHESIVES TECHNOLOGY CORP----- CRACKBOND 2300 GEL (formerly ULTRABOND 2300)	W028985	