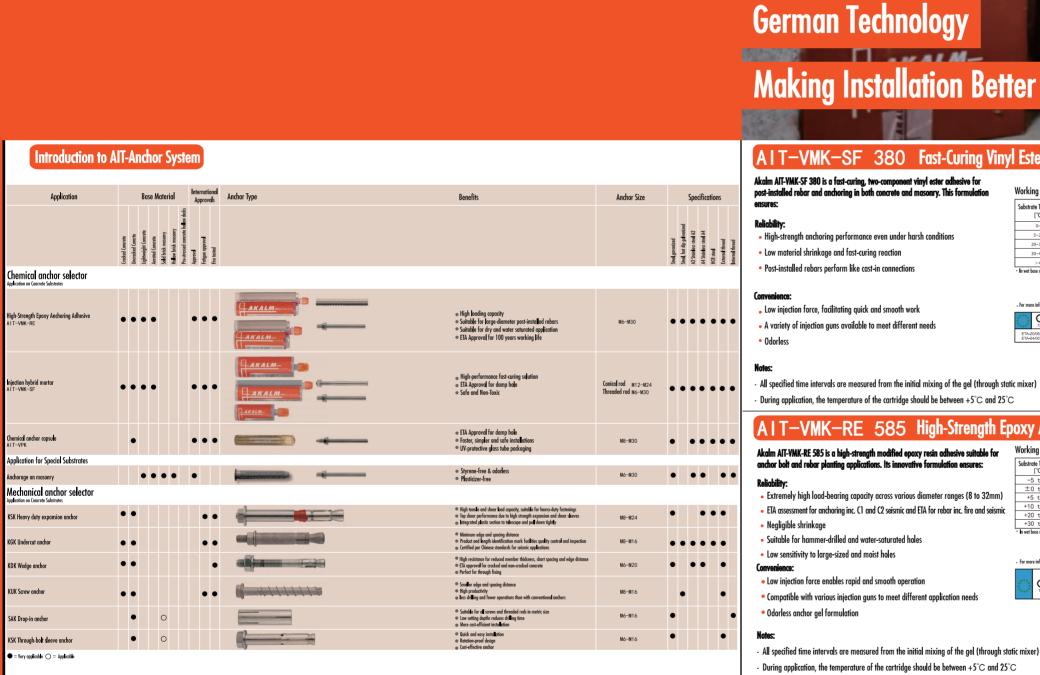
AKALM—

German Technology, Precision Installation.

Founded in 2019 through a strategic brand and technology transfer from Germany's KALM (www.kalm.de), AKALM (www.akalm.com) leverages this strong heritage to locally engineer and manufacture advanced bui-Iding solutions in China.

Marking an evolution from professional manufacturing to a dedicated focus on the AKALM brand, our products consistently meet the highest German standards for quality, reliability, and safety. Our field engineers and sales team partner with you throughout every project phase — from conceptual planning to final implementation — co-creating optimized, customized solutions.

Our Purpose: Making Installation Better.



AIT-VMK-SF 380 Fast-Curing Vinyl Ester Adhesive

AKALM-

Akalm AIT-YMK-SF 380 is a fast-curing, two-component vinyl ester adhesive for post-installed rebar and anchoring in both concrete and masonry. This formulati

AIT Anchor System

- High-strength anchoring performance even under harsh conditions
- Low material shrinkage and fast-curing reaction Post-installed rebars perform like cast-in connections

• Low injection force, facilitating quick and smooth work

• A variety of injection guns available to meet different needs

· All specified time intervals are measured from the initial mixing of the gel (through static mixer) - During application, the temperature of the cartridge should be between +5 $^{\circ}$ C and 25 $^{\circ}$ C

AIT-VMK-RE 585 High-Strength Epoxy Anchoring Adhesive Working time and Curing Time Akalm AIT-YMK-RE 585 is a high-strength modified epoxy resin adhesive suitable for anchor bolt and rebar planting applications. Its innovative formulation ensures:

- Extremely high load-bearing capacity across various diameter ranges (8 to 32mm) • ETA assessment for anchoring inc. C1 and C2 seismic and ETA for rebar inc. fire and seismic
- Negligible shrinkage
- Suitable for hammer-drilled and water-saturated holes • Low sensitivity to large-sized and moist holes

Technical Suppor

Anchor Selection

Field pull-out test

Design calculation of anchoring connections

Continuous training & knowledge transfer

• Rapid assistance and necessary on-site guidance

- Low injection force enables rapid and smooth operation
- Compatible with various injection guns to meet different application needs Odorless anchor gel formulation

All specified time intervals are measured from the initial mixing of the gel (through static mixer) During application, the temperature of the cartridge should be between +5°C and 25°C

Fast-Curing Vinyl Ester Adhesive Akalm AIT VMK-SF380

150ml/345ml/380ml

ETA -20/0627



Curing Time [hrs]







Application steps of anchoring adhesives















FTA -23/0110





Application Examples of Rebar Planting





Reinstate temporary openings e.g. cranes, debris removal simplification of wall form work
flexibility of construction methods

Floor slab connection

Intermediate floor slabs

 $\checkmark \ \ \text{unobstructed temporary openings}$ ✓ reduced risk of reinforcement damag

Wall and beam connections • Construction joints Structural extension Horizontal starter bars ✓ simplified handling of form work

Vertical connections New columns, piers

✓ reinforcement continuity✓ small drill hole dimensions

- Structural enhancemen Pile caps
- ✓ no complex reinforcement fixing ✓ unobstructed sire access







Structural connections

- $_{\checkmark}$ accurate location of starter bars ∠ allows complex details
- ✓ simplified wall formwork and joint ✓ odour free for confined space working
- Retaining walls

 Diaphragm walls

Connecting walls

✓ small diameter drill holes

 \checkmark connection of bent and hooked bars



 Bridge deck renovation Structural bonding across composite interfaces Structural upgrading of slabs and beams \checkmark rapid serial application

Cantilever connections

✓ small hole dimensions

✓ quick curing

√ negligible displacement ✓ deformed bar fixing



- Analyze the application Preliminary anchor selection
- Calculation & verification Punctual delivery
- Technical handover
- Installation avidance





Our Advantages

- German-originated formulation & processes
- Professional anchorage design software
- Advanced in-house testing laboratory Comprehensive application coverage
- Reliable quality control system
- Competitive pricing







 Structural upgrading Concrete remedial works



✓ high confidence - equivalent to cast-in ✓ short rebar exposure avoids rust staining



AIT Anchor System





					-		1		-	-	
Zinc-plated hex bolt rod 5.8	Hot dip galvanized hex bolt rod 5.8	d 5.8 Zinc-plated hex bolt rod 8.8	Hot dip galvanized hex bolt rod 8.8	8 Stainless steel hex bolt rod	Zinc-plated threaded rod 8.8	Hot dip galvanized threaded rod 8.8	d 8.8 Stainless steel threaded rod	Conical rod, hot dip galvanized, 8.8	d, 8.8 Sleeve,Nylon	Sleeve, Metal	
ASK M8x110, GRD5.8	2012250 ASK-F M8×110, GRD5.8	2011250 ASK M12×160, GRD8.8	2012206 ASK-F M8×110, GRD8. 8	2011202 ASK-R M8×110-A4	2014202 GSK M10x90, GRD8. 8	2012100 GSK-F M10x90, GRD8. 8	2011100 GSK-R M10×90-A4	2014100 WSK-F M16x125/30, GRD8.8	2011013 SHK-N M12×50	2010050 SHK-M M12×1000	2010057
ASK M10x130, GRD5.8	2012251 ASK-F M10×130, GRD5.8	2011251 ASK M16×165, GRD8.8	2012210 ASK-F M10×130 GRD8 8	2011203 ASK-R M10×130-A4	2014203 GSK M10×100, GRD8, 8	2012101 GSK-F M10×100, GRD8.8	2011101 GSK-R M10×100-A4	2014101 WSK-F M16x125/60, GRD8. 8	2011014 SHK-N M12x85	2010051 SHK-M M16x1000	2010058
ASK M10x165, GRD5.8	2012252 ASK-F M12×160, GRD5. 8		707 - 11100 00, 41100. 0					201/102 WCK-F W16-125/100 GDD8 8	2011015 SHK-N M16x85	2010052 SHK-M M22×1000	2010059
ASK M10×190 GRD5 8		2011254 ASK M16×190, GRD8. 8	ASK-F M12x160, GRD8. 8	2011206 ASK-R M12x160-A4		2012103 GSK-F M10x120, GRD8.8	2011102 GONTK MIUXIZUTH4	2014102 mon F m10x123/100, dnuo. 0		2010053 SHK-M M30×1000	2010060
A III (0) (1) (1) (1) (1)	2012253 ASK-F M12×190, GRD5. 8	2011254 ASK M16x190, GRD8. 8 2011255 ASK M16x250, GRD8. 8	ASK-F M12x160, GRD8. 8 ASK-F M16x165, GRD8. 8		2014206 GSK M10x130, GRD8. 8 2014211 GSK M10x145, GRD8. 8			-			
ASK M12x160, GRD5. 8		2011254 ASK M16x190, GRD8. 8 2011255 ASK M16x250, GRD8. 8 2011258 ASK M16x300, GRD8. 8	ASK-F M12x160, GRD8. 8 ASK-F M16x165, GRD8. 8 ASK-F M16x190, GRD8. 8		2014206 GSK M10×130, GRD8. 8 2014211 GSK M10×145, GRD8. 8 2014212 GSK M10×160, GRD8. 8			-			
ASK M12x160, GRD5. 8 ASK M12x190, GRD5. 8			ASK-F M16x165, GRD8. 8 ASK-F M16x165, GRD8. 8 ASK-F M16x190, GRD8. 8 ASK-F M16x200, GRD8. 8		2014206 GSK M10x130, GRD8. 8 2014211 GSK M10x145, GRD8. 8 2014212 GSK M10x160, GRD8. 8 2014221 GSK M10x180, GRD8. 8						

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letal Anchors	OK M8x55 5/~/- OK M8x70 20/10/- OK M8x86 35/25/- OK M8x105 55/45/15 OK M8x130 80/70/40 OK M10x83 20/10/- OK M10x83 20/10/-	Zinc-plated wedge anchor
	2022097 KDK M10x98 35/25/- 2022098 KDK M10x113 50/40/10 2022099 KDK M10x133 70/60/30 2022100 KDK M10x153 90/80/50 2022101 KDK M10x168 106/95/65 2022102 KDK M12x85 5/-/- 2022105 KDK M12x100 20/5/-	
	2022106 KI 2022107 KI 2022108 KI 2022109 KI 2022110 KI 2022111 KI 2022111 KI	
	R-F M8x55 5/-/- R-F M8x70 20/10/- R-F M8x85 35/25/- R-F M8x105 55/45/15 R-F M8x130 80/70/40 R-F M10x68 5/-/- R-F M10x63 20/10/-	Hot dip galvanized wedge anchor
	2021097 KDK 2021098 KDK 2021099 KDK 2021100 KDK 2021101 KDK 2021101 KDK 2021105 KDK	hor
	-F M10x98 35/25/F M10x113 50/40/10 -F M12x85 5/-/F M12x10 20/5/F M12x115 35/20/F M12x145 65/50/15 -F M12x25 145/130/95	
	2021106 KDK 2021107 KDK 2021111 KDK 2021112 KDK 2021113 KDK 2021114 KDK 2021114 KDK	Sta
	-R M8x55 5/-/- A4 -R M8x70 20/10/- A4 -R M8x85 35/25/- A4 -R M8x85 35/45/15 A4 -R M8x105 55/45/15 A4 -R M10x68 5/-/- A4 -R M10x68 5/-/- A4 -R M10x83 20/10/- A4 -R M10x98 35/25/- A4	Stainless steel wedge anchor
	2024097 KDK-R 2024098 KDK-R 2024099 KDK-R 2024100 KDK-R 2024102 KDK-R 2024105 KDK-R 2024106 栓 KDK	
	M10x113 50/40/10 M10x133 70/60/30 M10x133 70/80/50 M10x153 90/80/50 M12x85 5/-/- A4 M12x100 20/5/- A M12x115 35/20/- R M12x145 65/50/	
	2024107 2024108 2024109 2024111 2024112 2024112 2024113 2024114	
	KUK M8x55 5/-/- KUK M8x65 15/5/- KUK M8x75 25/15/5 KUK M8x85 35/25/15 KUK M8x100 50/40/30 KUK M8x120 70/60/50 KUK M8x150 100/90/80	Concrete screw
	2022367 KI 2022368 KI 2022369 KI 2022370 KI 2022371 KI 2022371 KI 2022373 KI	
	IK M10x60 5/-/- IK M10x70 15/-/- IK M10x80 25/5/- IK M10x80 35/15/5 IK M10x90 35/15/5 IK M10x100 45/25/15 IK M10x110 55/35/25 IK M10x130 75/55/45	
	2022374 KSH 2022375 KSH 2022376 KSH 2022377 KSH 2022378 KSH 2022379 KSH 2022380 KSH	
	K-B M6. 5x25/5 (M5) K-B M6. 5x40/20 (M5) K-B M6. 5x60/40 (M5) K-B M8x40/10 (M6) K-B M8x40/10 (M6) K-B M8x55/25 (M6) K-B M8x55/25 (M6) K-B M8x85/55 (M6)	Through-bolt sleeve anchor (Bolt head type)
	2022425 KSK-I 2022426 KSK-I 2022427 KSK-I 2022428 KSK-I 2022429 KSK-I 2022430 KSK-I 2022431 KSK-I	At head type)
	3 M10x100/65 (M8) 3 M12x55/15 (M10) 3 M12x75/35 (M10) 3 M12x100/60 (M10) 3 M12x100/60 (M12) 3 M16x60/10 (M12) 3 M16x100/50 (M12) 3 M16x140/90 (M12)	
	2022436 KSK-H 2022437 KSK-H 2022438 KSK-H 2022439 KSK-H 2022440 KSK-H 2022441 KSK-H 2022442 KSK-H	Throug
	\$x40/10 (M6) \$x55/25 (M6) \$x70/40 (M6) 10x40/5 (M8) 10x60/25 (M8) 10x80/45 (M8) 10x100/65 (M8)	Through-bolt sleeve anchor (Hex head type)
	2022399 KSK- 2022400 KSK- 2022401 KSK- 2022402 KSK- 2022403 KSK- 2022404 KSK- 2022405	lex head type)
	H 12x55/15 (M10) H 12x75/35 (M10) H 12x100/60 (M10) H 16x60/60 (M12) H 16x400/50 (M12) H 16x140/90 (M12)	NAT.
	2022406 2022407 2022408 2022409 2022409 2022410 2022411	
	SAK M6x25 SAK M8x30 SAK M10x40 SAK M12x50 SAK M16x65 SAK M20x80	Drop-in anchor
	2022200 2022201 2022202 2022202 2022203 2022204 2022204 2022205	
	Metal Anchors	202209 KW KINCH 202209 KW KINC

	SDS-KGK-22×137-M16	SDS-KGK-22×112-M16	SDS-KGK-18x87-M12	SDS-KGK-18x67-M12	SDS-KGK-16x67-M10	SDS-KGK-16x47-M10	SDS-KGK-14x56-M8	Depth stop drill bit		Consulting & Fixing Tools			KGK-F M16x100/60	KGK-F M16x100/30			KGK-F M12x80/20	KGK-F M12x80/35	Undercut anchor
	2020012	2020011	2020010	2020009	2020008	2020007	2020006			pols		2021226	2021225					2021220 KGK-F M16x125/75	
				Tool-KGK-M16	Tool-KGK-M12	Tool-KGK-M10	Tool-KGK-M8	KGK Setting tool	-			KHK-H M12/5	KHK-H M10/40				2021232 KHK-H M8/20		Heavy-du
								ing tool											Heavy-duty expansion anchor (Hex head type)
				2020004	2020003	2020002	2020001						2022275 KHK-H M20/10	2022274 KHK-H M16/50			2022271 KHK-H M12/50	2022270 KHK-H M12/25	read type)
•	_	Tool-SAK-20	Tool-SAK-16	Tool-SAK-12	Tool-SAK-10	Tool-SAK-8	TooI-SAK-6	SAK Setting tool			_		2022282 KHK-B M10/20	2022281 KHK-B M10/5	2022280 KHK-B M8/100			2022277 KHK-B M8/5	Heavy-duty e
		2020045	2020044	2020043	2020042	2020041	2020040	ol						2022324 KHK-B M12/100			2022321 KHK-B M12/5	2022320 KHK-B M10/100	Heavy-duty expansion anchor (Bolt head type)
									1		F	2022333	2022332	2022331	2022330	2022329	2022328	2022327	
	Steel Brush D18/20	Steel Brush D16/18	Steel Brush D15/17	Steel Brush D14/16	Steel Brush D12/13	Steel Brush D10/11	Steel Brush D8/9	Steel Brush	Опини						KHK-C M12/25	KHK-C M10/20	KHK-C M8/20	KHK-C M8/10	Heavy-duty expansion a
	2020068	2020067			2020064 Steel Brush D24/26		2020062 Steel Brush D20/22								2022350	2022349	2022348	2022347	Heavy-duty expansion anchor (Countersunk head type)
				2020072	2020071	2020070	2020069		-										