Technical data sheet
Version 2.0 09042022

WF-AE390

Anchoring epoxy adhesive

DESCRIPTION

Wolfix WF-AE390 anchoring epoxy adhesive is a two-component, non sag, 100% solids, multi-purpose, high-performance, moisture tolerant epoxy adhesive designed for anchoring bolts and rebar steel into concrete and for bonding or repairing a variety of household and common building materials including concrete, porous tile, and stone.

USES

- Planting steel bars and bolts in concrete, stone or other substrate.
- Curtain wall & stone dry hanging brackets' strengthening
- Building structure reinforcement & framework anchoring
- Various equipment's basic fixation
- Steel structures and concrete structures anchoring connection
- Rail fixing for railway building

GENERAL FEATURES

- High-strength
- Resists chemicals and solvents
- Moisture tolerant
- Fits standard caulking gun
- Non-shrink
- Fast-setting
  - ➢ Initial set time of in as little as 15-30 min.
  - ➢ Initial cure time of 2 hr.
  - ➢ Final cure of 1-3days
- Non-sag
- Excellent adhesion

PRODUCT INFORMATION

✦ **Package:**	390ml/pc, 20pc or 30pc per carton
✦ **Shelf life**	18 months
✦ **Storage condition**	Stored in their original packaging, in cool conditions (5℃-35℃) and out of direct sunlight.

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- **Color:** Red and grey
- **Mix Ratio** 3:1
- **Density** 1.5g/cm^3
- **Solids** 100%

TECHNICAL INFORMATION

- **Compressive strength**
  - 7 days at 25-32℃ 70.6MPa
- **Compressive modulus**
  - 7 days at 25-32℃ 2400MPa
- **Tensile strength**
  - 7 days at 25-32℃ 42MPa
- **Elongation at break**
  - 7 days at 25-32℃ 1.6%
- **Bonding strength**
  - 7 days at 25-32℃ ≥11.4MPa
- **Heat deflection temperature**
  - 7 days at 25-32℃ 68℃
- **Absorption**
  - 7 days at 25-32℃ 0.18%
- **Linear Coefficient of Shrinkage on Cure**
  - 7 days at 25-32℃ 0.009

OPERABLE TIME AND CURING TIME

Ambient temperature (℃)	-10-0	0-10	10-20	20-30	≥35
Operable time (min)	60	45	30	20	15
Curing time 70% (h)	72	48	24	12	6
Full curing time (days)	20	14	12	7	3

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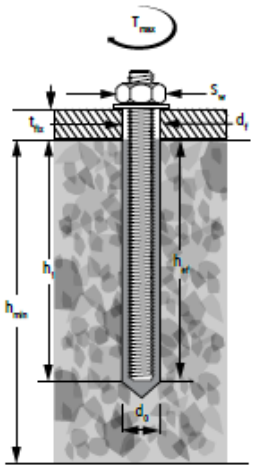
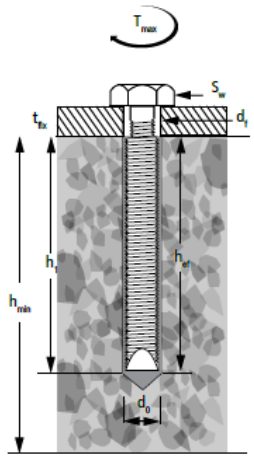
APPLICATION INSTRUCTIONS

✦ Installation information



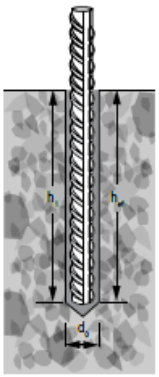
Installation data- threaded rod

	Notation	Unit	WF-AE500 – Threaded rod							
			M8	M10	M12	M16	M20	M24	M27	M30
Anchor diameter	d	[mm]	8	10	12	16	20	24	27	30
Nominal drill bit diameter	d_0=	[mm]	10	12	14	18	24	28	32	35
Diameter of hole clearance in fixture	d_f≤	[mm]	9	12	14	18	22	26	30	33
Diameter of steel brush	d_b≥	[mm]	12	14	16	20	26	30	34	37
Min embedment & drill hole depth	$h_{ef,min}$	[mm]	60	60	70	80	90	96	108	120
Max embedment & drill hole depth	$h_{ef,max}$	[mm]	160	200	240	320	400	480	540	600
Minimum member thickness	h_{min}	[mm]	h_{ef} + 30mm ≥ 100mm			h_{ef} + 2 x d_0				
Minimum spacing	s_{min}	[mm]	40	50	60	80	100	120	135	150
Minimum edge distance	c_{min}	[mm]	40	50	60	80	100	120	135	150
Thickness of fixture	t_{fix}	[mm]	0 mm ≤ t_{fix} ≤ 1500mm							
Maximum torque	T_{max}	[Nm]	10	20	40	80	120	160	180	200
Torque wrench socket size	S_W	[mm]	13	17	19	24	30	36	41	46



Installation data- Internal threaded sleeve

	Notation	Unit	WF-AE500 – Internal threaded sleeve				
			M8	M10	M12	M16	M20
External diameter of sleeve	d	[mm]	12	16	20	24	30
Nominal drill bit diameter	d_0=	[mm]	14	18	24	28	35
Diameter of hole clearance in fixture	d_f≤	[mm]	9	12	14	18	22
Diameter of steel brush	d_b≥	[mm]	16	20	26	30	37
Embedment and drill hole depth	H_{ef}	[mm]	80	90	110	150	200
Minimum member thickness	h_{min}	[mm]	110	130	160	210	270
Minimum edge distance	c_{min}	[mm]	60	80	100	120	150
Minimum spacing	s_{min}	[mm]	60	80	100	120	150
Screw diameter	d_1	[mm]	8	10	12	16	20
Minimum length of screw	$l_{1,min}$	[mm]	8	10	12	16	20
Maximum length of screw	$l_{1,max}$	[mm]	35	45	55	75	85
Maximum torque	T_{max}	[Nm]	10	20	40	80	120
Recommended Torque wrench socket size	S_W	[mm]	13	17	19	24	30



Installation data- Reinforcement bar

	Notation	Unit	WF-AE500 – Reinforcement bar								
			Φ8	Φ10	Φ12	Φ14	Φ16	Φ20	Φ24	Φ28	Φ32
Nominal diameter of rebar	d	[mm]	8	10	12	14	16	20	24	28	32
Nominal drill bit diameter	d_0=	[mm]	12	14	16	18	20	24	28	35	37
Diameter of steel brush	d_b≥	[mm]	12	14	16	20	26	30	34	37	40
Min embedment & drill hole depth	$h_{ef,min}$	[mm]	60	60	70	75	80	90	96	112	128
Max embedment & drill hole depth	$h_{ef,max}$	[mm]	160	200	240	280	320	400	480	560	640
Minimum member thickness	h_{min}	[mm]	h_{ef} + 30mm ≥ 100mm			h_{ef} + 2 x d_0					
Minimum spacing	s_{min}	[mm]	40	50	60	70	80	100	120	140	160
Minimum edge distance	c_{min}	[mm]	40	50	60	70	80	100	120	140	160

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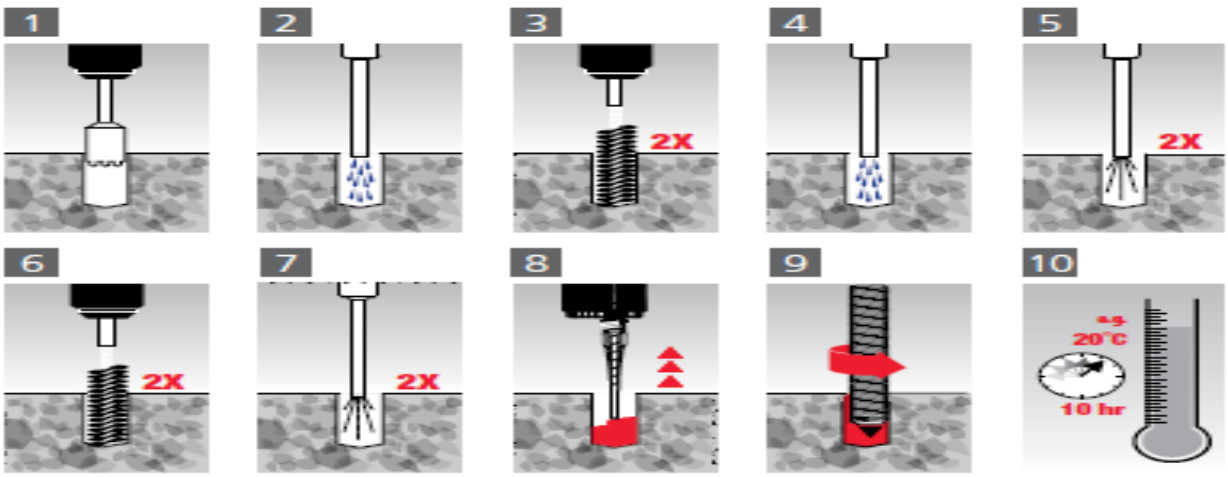
APPLICATION INSTRUCTIONS

✦ Installation process

1. Using the proper core bit size, drill a hole into the base material to the required depth.
2. Rinse the hole until water runs clear.
3. Brush the hole with the proper wire brush - 2 times minimum.
4. Rinse the hole until water runs clear.
5. Blow the hole clean using a hand pump (suitable for maximum 20mm dia. hole) or compressed air - 2 times minimum.
6. Brush the hole with the proper wire brush - 2 times minimum.
7. Blow the hole clean using a hand pump (suitable for maximum 20mm dia. hole) or compressed air - 2 times minimum
8. Squeeze out separately and discard a minimum of 10cm until the mortar is uniformly mixed and shows consistent color. Starting from the rear of the hole, fill the hole up to approximately 2/3 with uniformly mixed adhesive.
9. Push the threaded rod / rebar into the hole while turning slightly to ensure positive distribution
of the adhesive. Be sure that the rod / rebar is seated at the bottom of the hole and that some
adhesive has flowed from the top of the hole.
10. Allow the adhesive to cure for the time specified for the actual concrete temperature (in dry concrete). Do not disturb or load the anchor until the adhesive has fully cured. Follow the longer curing time for wet concrete.



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APPLICATION INSTRUCTIONS

✦ Application tools

Manually dispenser gun.

Electric dispenser gun

Steel brush used for cleaning the hole

Blow pump used for cleaning the hole

POINTS FOR ATTENTION

▪ Use up within the applicable period, do not use the adhesive if it is beyond the applicable period;
▪ If the cartridges adhesive are not used up, they should be covered and sealed. They should not be exposed to air for a long time;
▪ The construction workers should take all necessary safety measures (such as wearing masks, gloves, goggles, etc.), and maintain fire prevention measures as well as keeping the site clean;
▪ If the adhesive accidentally got in touch the skin and cloths, acetone can be used to wipe it at once, followed by a great deal of clear water;
▪ If accidentally swallowed or splashed into the eyes, please seek immediate medical service.

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ENVIRONMENT, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products.

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