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RT238

RETAINING HIGH STRENGTH

Akfix RT238 is a single component, resin based, high viscosity, high strength product used for strengthening mechanical connections.

FIELD OF APPLICATION AND PROPERTIES

- **Can be used on all kinds of rough surfaces.**
- **Fills gaps in worn out joints**
- **Fits bearings, prevents the dislocation.**
- **Fills smallest gaps due to its low viscosity and is used in sensitive fittings.**
- **Fits impellers and shafts together.**
- **Locks linings and boots to their beds and on the shaft.**

INSTRUCTIONS

- Clean male and female threads before assembly with an absorbent tissue paper to remove any cutting oil.
- Apply the adhesive with a 360 turn to leading threads of the male and female fittings.
- Use an absorbent tissue paper to wipe off excess jointing compound in the direction of the thread.
- Assembly parts and hold on for 24 hours at 22-24°C to ensure full curing of jointing compound.
- For disassembly, use hand tools to remove mating parts. When it is hard to dissemble at room temperature, apply local heat until reaching 250°C and disassemble while hot. Then, remove any residual cured adhesive mechanically and clean parts with a proper solvent, acetone.

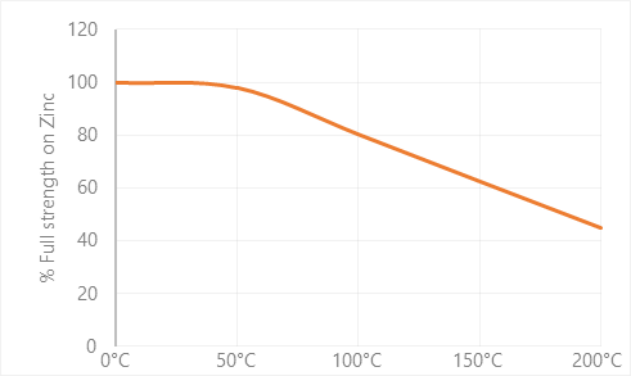
Resistance against Environmental Conditions

Environmental resistance of cured adhesive is measured after curing by applying ISO 10964 preloaded assembly test at different conditions.

Test method	:	ISO 10964
Bolt and nut specs.	:	Zinc plated, M10x25
Curing condition and duration	:	22°C, 1 week
Torque test conditions (exception is hot strength test)	:	22°C

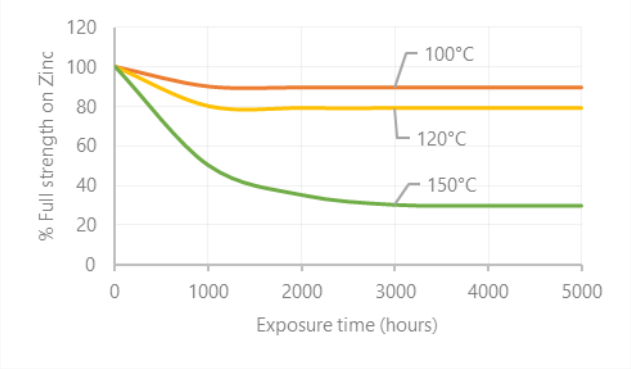
Hot Strength

Strength is examined at various temperatures. The reference value of '% Full strength on zinc plated' is taken from previous tables corresponding 24 hours curing.



Heat Aging

Strength is examined on specimens that are aged at different temperatures. The reference value of '% Full strength on zinc plated' is taken from previous tables corresponding 24 hours curing.



STORAGE AND SHELF LIFE

Keep product in its original container at 22°C and avoid to contact with direct sunlight. Storage below 5°C and above 30°C can negatively affect product properties.
Material removed from its original container can be contaminated during usage which affects both adhesive performance and storage life. Therefore, do not return contaminated product to the original container.
Shelf life: 36 months at 22°C.

TECHNICAL PROPERTIES

General properties

Main constituent	:	Methacrylate ester
Appearance (uncured)	:	Liquid
Colour	:	Green
Viscosity	:	Medium to high
Strength	:	High

Physical properties of uncured adhesive

Specific gravity **Conditions: 22°C**	:	1.04
Flash point **Method: ASTM D56-05**	:	>93°C
Temperature range	:	-50°C to 150°C
Corrosivity	:	Non-corrosive
Gap filling	:	up to 0.25mm
Viscosity Conditions: 22°C **Method: ISO 2555** **Apparatus: Brookfield RVT, spindle 3**	:	4000 - 4500 cPs (@20 rpm)

Typical curing performance of adhesive

Curing time at room conditions

Various type of curing time of adhesive on several substrates are given as follows. Note that results can differ due to distance of bond gap and temperature.

Specimens	:	M10x25 bolt and proper nut
Conditions	:	22°C

Handling time

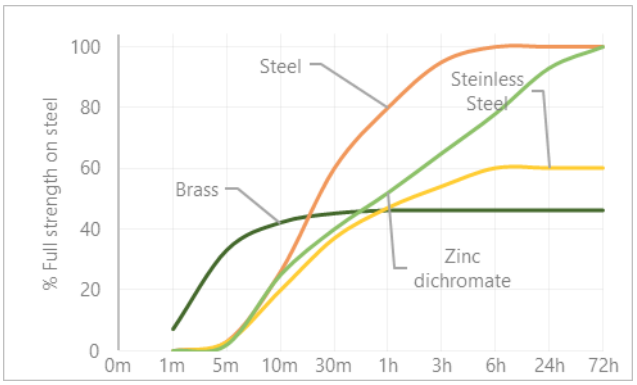
Material of specimen	Duration
Brass	<60 secs
Steel	5 to 7 mins
Stainless steel	6 to 8 mins
Zinc plated steel	5 to 10 mins
Aluminium	20 to 35 mins

Average functional curing time: 1 to 3 hours
Average full curing time: 8 to 12 hours

Curing speed with different substrates

The curing rate of anaerobic adhesive greatly depends on type of surface material, substrate. The curing rate developed in time is determined by measuring breakaway torque of bolt and nut specimens. Test details and resultant graphs are given below.

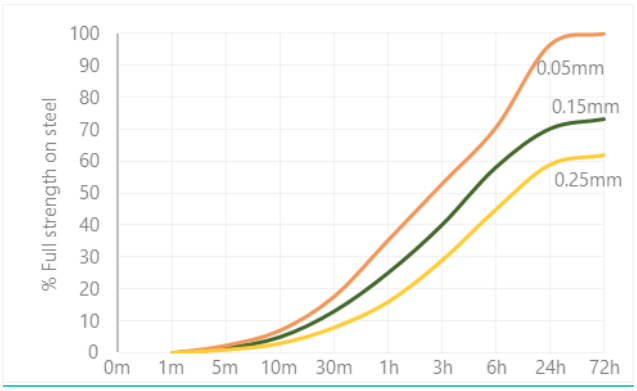
Test method	:	ISO 10964
Bolt and nut specs.	:	M10x25
Conditions	:	22°C



Curing speed with different bond gaps

Distance between two surfaces can significantly effect curing rate of adhesive. The curing rate developed in time is determined by measuring shear stress on the one surface of the specimen. Test details and resultant graphs are given below.

Test method	:	ISO 10123
Conditions	:	22°C



Typical cured performance of adhesive

Performance of cured anaerobic adhesive is examined and resultant torque values are given below.

Test method	:	ISO 10964
Conditions	:	22°C
Specimens	:	Different type of pins and collars

Unseated assembly cured for 24 hours	
Type of specimen	**Breakaway Torque (T_{BA})**
Steel	26 N.m
Stainless steel	28 N.m
Aluminium	17 N.m
Unseated assembly cured for 1 week	
Type of specimen	**Breakaway Torque (T_{BA})**
Steel	32 N.m
Stainless steel	30 N.m
Aluminium	19 N.m

PACKAGING

Product	**Volume**	**Package**
Plastic Bottle	15mk/50ml/250ml	