

Weiconlock AN 302-70 High Strength Thread Locking Adhesive

Technical Data Sheet

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Weiconlock AN 302-70 High Strength Thread Locking Adhesive is a industrial grade threadlocker manufactured by Weicon in Germany. This grade is designed for permanently locking and sealing threaded bolts, fittings and stud bolts. It is used on fittings up to M 20 (R ³/₄") in diameter.

AN 302-70 has been tested and approved by DVGW. This allows it to be used for locking, bonding and sealing threaded fittings on gas equipment and gas lines.

This high quality threadlocker is green in colour. It will achieve handling strength 10 to 20 minutes after application and be fully cured in about 3 to 6 hours. Once cured, it can withstand temperatured between -60°C and +150°C.



Like all of our Weiconlock range, this is an anerobic adhesive. It will only activate and begin to cure when in contact with metal and deprived of air (e.g. when sandwhiched between a bolt and a nut). Consequently, Weiconlock AN 302-70 has no pot life.

Applications

Typical applications for this high quality anaerobic adhesive include:

- Permanent locking of threads, threaded fittings and stud bolts.
- Locking and sealing threaded fittings for gas applications.
- High strength locking of threaded parts to prevent undoing.

Technical Details

Froperties					
Colour	Green				
For Threaded Joints Up To	M 20 (R ¾")				
Viscosity at 25°C Brookfield	500 MPa				
Gap Filling Capacity (Max.)	0.15mm				
Breakaway Strength (Thread)	28 – 35 Nm				
Prevailing Strength (Thread)	50 – 65 Nm				
Shear Strength (DIN 54452)	15 – 20 N/mm²				
Handling Strength At Room Temperature	10 – 20 Minutes				
Final Strength At Room Temperature	3 – 6 Hours				
Temperature Resistance	-60°C to +150°C				

Properties



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Weiconlock Anaerobic Adhesives General Chemical Resistance Table

Acetaldehyde	+	Ethylene Dichloride	+	Perchloroethylene (Dry)	+
Acetate Solvent	+	Ethylene Glycol	+	Perchloric Acid (10%)	%+
Acetic Acid (10%)	%+	Fatty Acids	+	Permanganic	-
Acetic Acid (80%)	%O	Ferrous Sulphate	+	Peroxide Bleaching	+
Acetone	+	Formaldehyde (Cold)	+	Peroxy	-
Alcohols	+	Formic Acid (Cold)	+	Persulphuric (10%)	%+
Alkaline Solution	+	Freon	+	Phenol	+
Ammoniac Anhydride	_	Fuel Oil	+	Phenolic Resins	+
Ammonium Hydroxide	0	Fuming Nitric Acid	-	Phosphoric Acid 10% Hot	0
Amyl Acetate	+	Fuming Sulphuric Acid	-	Phosphoric Acid 10% Cold	+
Aniline	+	Gasoline	+	Phosphoric Acid 50% Hot	0
Aromatic Gasoline	+	Glycolic Acid	+	Phosphoric Acid 50% Cold	0
Aromatic Solvent	+	Glycerine	+	Phosphoric Acid 85% Hot	-
Ash Slurry	+	Grease Lubrication	+	Phosphoric Acid 85% Cold	0
Barium Sulphate	+	Hydrogen Bromide (10%)	%+	Phthalic	+
Battery Acid (10%)	%+	Hydrocyanic Acid (10%)	%+	Potash Alum	+
Benzene	+	Hydrogen	+	Potassium Acetate	+
Benzoic Acid	+	Hydrogen Peroxide		Potassium Hydroxide	-
Boric Acid	+	Concentrate	0	Pyridine	+
Brake Fluid	+	Hydrofluoric Acid	-	River Water	+
Butadiene	+	Heptane	+	Sewage	+
Butyric (10%)	· %+	Hydrazine	+	Sea Water	+
Butylaldehyde	+	Hydrochloric Acid	Ö	Silicone Oils	+
Butylamine	+	Isocyanate Resin	+	Sorbitol	+
Butyl Acetate	+	Isooctane	+	Steam Sterilisation	+
Butyl Chloride	+	Ketones	+	Styrene	+
Cadmium Sulphate	+	Lithium Chloride	+	Sulfones	+
Castor Oil	+	Malelc	+	Sulfonic Acids (10%)	·
Cellulose Acetate	+	Melamine Resin	+	Sulphuric Acid (75-100%)	%-
Chinon	+	Mercaptan, Thioalcohol	+	Sulphur Mud Solution in	/0
Chlorine (Dry)	-	Methane	+	Carbon Disulphide	+
Chlorine Alcohol	+	Methylamine	+	Sulphurous Acid	0
Chloramine	+	Methyl Ethyl Ketone	+	Sulphuric Acid (75%)	%0
Chlorine Dioxide	0	Methyl Acetate	+	Turpentine	+
Chlorinated Hydrocarbon	+	Mineral Oil, White	+	Thiourea	+
Chloroform (Dry)	+	Mine Water	+	Toulene, Methylbenzene	+
Coal Tar	+	Naphtha, Petroleum	+	Trichloroethane	+
Copper Chloride	+	Naphthalene	+	Trichloromethane	+
Copper Sulphate	+	Natronhydroxyd 20% hot	%O	Trioxane	+
Cold Salt Water	+	Natronhydroxyd 20% cold	%+	Vapor Pressure (Low)	+
Developer Liquid	+	Natronhydroxyd 50% hot	%-	Vaseline	+
Dichloroethylether	+	Natronhydroxyd 50% cold	%O	Vinyl Acetate	+
Diethyl ether	+	Natronhydroxyd 70% hot	%-	Wax	+
Diglycollic	+	Natronhydroxyd 70% cold	%O	Xylene, Dimethylbenzene	+
Dioxane (Dry)	+	Nitric Acid (20%)	%+	, , , , , , , , , , , , , , , , , , ,	-
Emulsified Oils	+	Oils	+		
Ethyl Acetate	+	Oxalic Acid	+		
Ethylenediamine	+	Paraffin Oil, Kerosene	+		
,	-		-		

+ = Good Resistance

O = Preliminary Tests or Resistance Tests are Recommended

% = Weiconlock adhesives are resistant only up to the indicated concentration

- = Weiconlock adhesives are not suitable, or may be used only after thorough preliminary tests

Important

The values listed here and the information presented should not be treated as a substitute for specific technical advice. We cannot warrant the products performance or suitability for particular applications.



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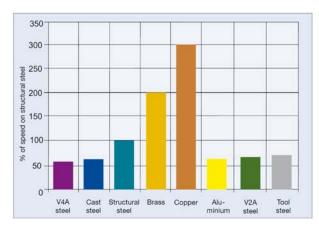
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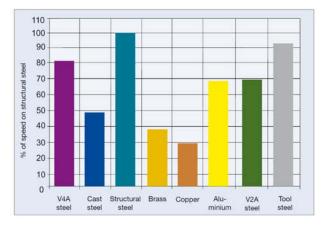
Weiconlock Adhesives General Information

All grades of Weiconlock are high quality anaerobic adhesives based on specialised methacrylate resins. While the grades differ in cure time, temperature resistance, cure strength, colour, viscosity and more; one thing that unites them is the fact that they only cure when in contact with metal and deprived of air. This special feature allows Weiconlock adhesives to be very easy to use as there's essentially no pot life.

As liquid adhesives, Weiconlock adhesives completely fill any gaps and thus protect against leakage and fretting corrosion. Once cured, these high quality adhesives form a shock and vibration resistant joint with excellent resistance to chemicals and solvents.



Approximate Curing Speed of Weiconlock By Material



Compression Shear Strength of Weiconlock Varying according to Metal (DIN 544521)

Preparation of the Surface

In general, Weiconlock adhesives do not require special surface pre-treatment as slightly oil surfaces (e.g. on 'as received' parts) will be tolerated. However, best results will be achieved if Weiconlock is used on parts that are cleaned and degreased (Cleaner S may be ideal). If required, the parts should be slightly roughened.

Application

Weiconlock AN 302-70 is ready for use as soon as the bottle is opened and should be applied evenly and directly from the bottle/tube with the dispensing tip (avoid direct contact of tip with metal). On press fitted parts and larger cylindrical assemblies a thin uniform layer should be applied to both surfaces. In the case of blind threaded holes, dispense a sufficient quantity into the bore hole. On screws and bolts, apply AN 302-70 around the thread.

Do not pour any Weiconlock fluid that has had contact with metal back into the bottle. Even the smallest quantity of metal particles will cause the content of the bottle to cure. In series construction, the use of manual or automatic applicators is possible.

Physiological properties / health and safety at work

Weiconlock adhesives generally do not cause allergic reactions to the skin. However, in isolated cases where skin is continuously bruised or micro-lacerated, sensitisation may occur. Therefore, extensive and direct contact with the skin should be avoided (e.g. by the use of Weicon Hand Protective Foam). For more information on this topic, please refer to the appropriate SDS.

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Weiconlock Activator F

The cure time of all grades of Weiconlock adhesives can be reduced by pre-treating surfaces with Weiconlock Activator F which is recommended for all passive surfaces (such as high alloyed steel, chromate layers, plastics, ceramics, aluminium, zinc or nickel) and which is indispensable when working in low temperature (+10°C and below) environments or when covering large gaps.

Cure

Weiconlock remains liquid as long as it is in contact with the air. Curing starts when Weiconlock is in contact with metal and deprived of air. Observable cure time is influenced not only by the type of Weiconlock, but also the material(s) it is exposed to and the environmental temperature.

Dismantling

Weiconlock AN 302-70 cures with high strength. Connections locked and sealed with this grade may be disassembled by heating to a minimum of 300°C. Cured residues of Weiconlock can also be removed mechanically or with Weicon Gasket Remover (also known as Weicon Sealant and Adhesive Remover).

Storage

Weiconlock AN 302-70 can be stored in its unopened original container for at least 12 months at room temperature. Keep away from heat sources and direct sunlight.

Availability

Weiconlock AN 302-70 is available in 10ml, 20ml, 50ml and 200ml Pens.