

Technical Data Sheet

Weiconlock AN 305-10 is a one-part, anaerobic adhesive that can be used to form lasting, high strength bonds and seals between close fitting metal flanges or connections. This grade has a high viscosity for accurate application to complex flange facings and can replace paper, cork, rubber or fibre gaskets.

Weiconlock AN 305-10 cures with high strength to create permanent seals and bonds that will be hard to disassemble. It has been approved by the AGA (Australian Gas Association) for use in sealing gas line connections and withstands continuous exposure to elevated temperatures up to 200°C once fully cured.



Applications

Typical applications for this high quality liquid gasket adhesive include:

- Sealing gearboxes and compressor housings
- Sealing motor and pump housings
- Sealing of all kinds of close fitting flanges and assemblies
- As an economical alternative to thin paper, cork, fibre or metallic gaskets

Technical Details

| Properties | |
|---------------------------------------|--------------------------|
| Colour | Orange |
| For Threaded Joints Up To | --- |
| Viscosity at 25°C Brookfield | 70,000 – 300,000 MPa |
| Gap Filling Capacity (Max.) | 0.5mm |
| Breakaway Strength (Thread) | 18 – 25 Nm |
| Prevailing Strength (Thread) | 15 – 25 Nm |
| Shear Strength (DIN 54452) | 5 – 10 N/mm ² |
| Handling Strength At Room Temperature | 15 – 30 Minutes |
| Final Strength At Room Temperature | 6 – 12 Hours |
| Temperature Resistance | -60°C to +200°C |

Approvals & Recognitions

AGA Approved for use in Gas Sealing Applications

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.

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 | O | Fuming Nitric Acid | - | Phosphoric Acid 10% Hot | O |
| Amyl Acetate | + | Fuming Sulphuric Acid | - | Phosphoric Acid 10% Cold | + |
| Aniline | + | Gasoline | + | Phosphoric Acid 50% Hot | O |
| Aromatic Gasoline | + | Glycolic Acid | + | Phosphoric Acid 50% Cold | O |
| Aromatic Solvent | + | Glycerine | + | Phosphoric Acid 85% Hot | - |
| Ash Slurry | + | Grease Lubrication | + | Phosphoric Acid 85% Cold | O |
| Barium Sulphate | + | Hydrogen Bromide (10%) | %+ | Phthalic | + |
| Battery Acid (10%) | %+ | Hydrocyanic Acid (10%) | %+ | Potash Alum | + |
| Benzene | + | Hydrogen | + | Potassium Acetate | + |
| Benzoic Acid | + | Hydrogen Peroxide | O | Potassium Hydroxide | - |
| Boric Acid | + | Concentrate | | Pyridine | + |
| Brake Fluid | + | Hydrofluoric Acid | - | River Water | + |
| Butadiene | + | Heptane | + | Sewage | + |
| Butyric (10%) | %+ | Hydrazine | + | Sea Water | + |
| Butylaldehyde | + | Hydrochloric Acid | O | Silicone Oils | + |
| Butylamine | + | Isocyanate Resin | + | Sorbitol | + |
| Butyl Acetate | + | Isooctane | + | Steam Sterilisation | + |
| Butyl Chloride | + | Ketones | + | Styrene | + |
| Cadmium Sulphate | + | Lithium Chloride | + | Sulfones | + |
| Castor Oil | + | Maleic | + | Sulfonic Acids (10%) | %+ |
| Cellulose Acetate | + | Melamine Resin | + | Sulphuric Acid (75-100%) | %- |
| Chinon | + | Mercaptan, Thioalcohol | + | Sulphur Mud Solution in | |
| Chlorine (Dry) | - | Methane | + | Carbon Disulphide | + |
| Chlorine Alcohol | + | Methylamine | + | Sulphurous Acid | O |
| Chloramine | + | Methyl Ethyl Ketone | + | Sulphuric Acid (75%) | %O |
| Chlorine Dioxide | O | 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

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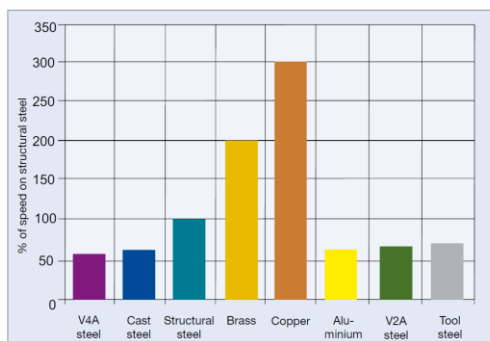
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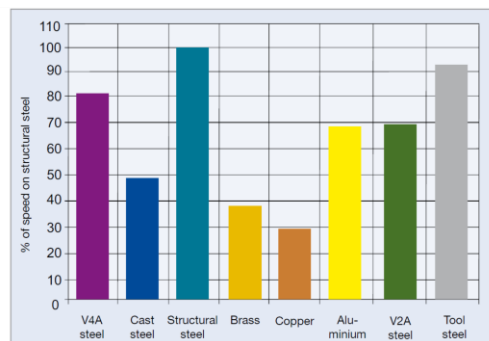
Weiconlock Adhesives General Information

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 305-10 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. AN 305-10 is not designed for use as a thread locking adhesive.

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. Though curing will be quickened by use, Weiconlock AN 305-10 does not require use of the activator when used on passive surfaces.

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 305-10 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 305-10 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 305-10 is available in 50ml Pens.

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