



PARSON ADHESIVES, INC.

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SONLOK™ 3509 **Anaerobic Flange Sealant**

SONLOK 3509 is an anaerobic gasket sealant, which develops medium strength in a short time. The compound cures in the absence of air between close fitting metal surfaces.

SONLOK 3509 provides instant sealing, and excellent resistance to low pressure immediately after assembly of flanges. It seals close fittings joints between metal faces and flanges.

Applications:

- Used as a form-in-place gasket on flanged connections.
- Typical uses are engine casings and gearbox.
- Thixotropic nature reduces the migration of liquid product after application.

Adhesive Properties:

| | |
|--|------------------------------------|
| Composition: | Dimethacrylate ester |
| Color: | Blue |
| Viscosity: | 65, 000 to 200,000 cps Thixotropic |
| Brookfield RVT @ 25 °C Spindle 7 @ 20 rpm | |
| Specific Gravity: | 1.10 |
| Maximum Diameter of Thread/Gap Filling: | >0.20 mm |
| Flash Point: | > 93 °C |
| Solvent Content: | None |

Curing Properties:

Handling Cure Time

| | |
|--------------------|---------------|
| Unprimed Surfaces: | 6 to 48 hours |
| Primed Surfaces: | 1 to 6 hours |

Compressive Shear Strength:
(ISO 10123)

After 24 hours at 22 °C

| | |
|----------------------|------------------------------------|
| Steel Pins & Collars | > 6 N/mm ² > 870 psi |
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| Lap Shear Strength, ISO 4587 Steel (grit blasted) | 9 N/mm ² 1,305 psi |
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Tensile Strength, ISO 6922 8 N/mm²
Steel (grit blasted) 1,160 psi
Temperature Range -65 to 300 °F

Physical Properties:

Coefficient of Thermal Expansion, 80×10⁻⁶
ASTM D 696, K-1
Coefficient of Thermal Conductivity, 0.10
ASTM C 177, W/(m·K)
Specific Heat, kJ/(kg·K) 0.30

Chemical Resistance:

| Chemical | Temp. | % Initial Strength Retained | |
|--------------|--------|-----------------------------|------------|
| | | 500 hours | 1000 hours |
| Acetone | 22 °C | 100 | 90 |
| Ethanol | 22 °C | 90 | 85 |
| Motor Oil | 125 °C | 100 | 100 |
| Gasoline | 22 °C | 100 | 100 |
| Brake Fluid | 22 °C | 95 | 90 |
| Water/Glycol | 87 °C | 75 | 35 |

Directions for use:

- For best results, clean all surfaces (external and internal) with a cleaning solvent and allow solvent to evaporate.
- If the material is an inactive metal or the cure speed is too slow, spray with Activator 3071 or 3049 and allow to dry.
- Apply manually as a continuous bead or by screen-printing to one of surface of the flanges.
- Low pressure can be used when testing to confirm a complete seal immediately after assembly.
- Flanges should be tighten as soon as possible after assembly to avoid shimming.

Storage:

Anaerobic adhesives shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 46 °F to 82 °F. Please do not return any unused material to its original container.

PRECAUTIONS: This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the material.

Warranty: All products purchased from or supplied by Parson are subject to terms and conditions set out in the contract. Parson warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Parson is consider accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Parson makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will nor infringe any patent.