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# **SONLOK™** 3603 Retaining Compound

SONLOK 3603 is a high strength anaerobic retaining compound for cylindrical fitting parts. This adhesive designed to develop bonds even on surfaces lightly contaminated with oil.

SONLOK 3603 retaining compound is a single component anaerobic adhesive, which develops high strength rapidly when confined in the absence of air between close fitting metal surfaces.

# **Applications:**

- Ideally used where consistent clean surfaces is a problem.
- Used for impregnated bushings into housings.
- Retains roller bearings into pump housings.

# Adhesive Properties:

Composition: Urethane Methacrylate

Color: Green

Viscosity: 120 cps at 25 °C

Brookfield RVT Spindle 4 @ 25 rpm

Specific Gravity: 1.1

Maximum Diameter

of Thread/Gap Filling: 0.10 mm Flash Point: > 93  $^{\circ}$ C Solvent Content: None Shelf Life: 1 year

**Curing Properties:** 

Handling Cure Time: 25 - 30 minutes
Functional Cure Time: 2 - 4 hours
Full Cure Time: 24 hours
Compressive Shear Strength (ISO 10123):

After 24 hours at 22 °C

Steel Pins & Collars 20 - 32 N/mm<sup>2</sup>

3, 875 psi

After 30 minutes at 22 °C

Steel Pins & Collars 13 - 15 N/mm<sup>2</sup>

1,960 psi

Temperature Range -55 to 150 °C



## **Physical Properties:**

Coefficient of Thermal Expansion, 80×10<sup>-6</sup>
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	95
Ethanol	22 °C	100	100
Motor Oil	125 <sup>0</sup> C	100	100
Gasoline	22 °C	100	100
Brake Fluid	22 °C	100	100
Water/Glycol	87 °C	90	85

## Directions for use:

## For Assembly

- 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 to0 slow, spray with Activator 3071 or 3049 and allow to dry.
- For Slip Fitted Assemblies, apply adhesive around the leading edge of the pin and the inside of the collar and use a rotating motion during assembly to ensure good coverage.
- For Press Fitted Assemblies, apply adhesive thoroughly to both bond surfaces and assemble at high press on rates.
- For Shrink Fitted Assemblies the adhesive should be coated onto the pin, the collar should then be heated to create sufficient clearance for free assembly.
- Parts should not be disturbed until sufficient handling strength is achieved.

#### For Disassembly

 Apply localized heat to the assembly to approximately 250°C. Disassemble while hot.

## Storage:

Anaerobic adhesives shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 46  $^{0}$ F to 82  $^{0}$ 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.

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