

**PALM LABS ADHESIVES, INC.**

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**TECHNICAL DATA SHEET**

**Bearing and Shaft – High Strength Slip Fit Retaining Compound**

**BEARING AND SHAFT - SERIES 17** is a fast curing, **GREEN**, high strength, slip fit, anaerobic retaining compound for bonding, sealing and retaining of cylindrical parts. It is highly resistance to heat, vibrations, water, gases, oils, hydrocarbons and many chemicals.

**Part Numbers for this TDS: 17-001, 17-010, 17-050, 17-250, 17-1000**

**Applications**

- Ideal to fill gaps up to 0.015”
- Excellent for slip fitting parts.
- Withstands working temperatures up to 300 ° F
- Retaining sleeves, pulleys, gears, rotors and fans on shafts.
- Mounting sleeves, securing bushings, bearings and plugs in housing.
- Excellent retaining and sealing compound

**ADHESIVE PROPERTIES**

Color	Green
Composition	Methacrylate Esters
Viscosity (Brookfield RVT Spindle 3 @ 20 rpm)	1200 cps at 25 ° C
Specific Gravity	1.11 at 25 ° C
Maximum Diameter of Thread/Gap Filling	0.015”
Flash Point	> 93 ° C
Solvent Content	None
Shelf Life	2 years

**CURING PROPERTIES**

Handling Cure Time	10 minutes
Functional Cure Time	1-3 hours
Full Cure Time	24 hours
Compressive Shear Strength, ISO 10123	
Steel pins and collars	
After 24 hours @ 22 ° C	> 29 N/mm <sup>2</sup> >4000 psi
Steel pins and collars	
After 30 minutes @ 22 ° C	> 16 N/mm <sup>2</sup> 2100 psi
Temperature Range	-55 to 150 ° C

## PHYSICAL PROPERTIES

Coefficient of Thermal Expansion ASTM D 696, K-1	80x10 <sup>-6</sup>
Coefficient of Thermal Conductivity ASTM C 177, W/(m.K)	0.10
Specific Heat kJ/(kg.K)	0.30

## CHEMICAL RESISTANCE

<u>Chemical</u>	<u>Temperature</u>	<u>% Initial Strength Retained</u>	
		<u>500 Hours</u>	<u>1000 Hours</u>
Acetone	22 °C	100	95
Ethanol	22 °C	100	100
Motor Oil	125 °C	100	100
Gasoline	22 °C	100	100
Brake Fluid	22 °C	100	100
Water/Glycol	87 °C	100	98

### Application Method

- Surfaces should be dry, clean, and free of any contamination. For best results, clean with a solvent and allow solvent to evaporate.
- If the material is an inactive metal or the cure speed is too slow, spray surfaces with our Turbo-Lock Primer/Activator 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 Slip 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.
- **For Disassembly:** Apply localized heat to the assembly to approximately 250°C. Disassemble while hot.

### Storage

Anaerobic adhesives are ideally stored in a cool, dry place in unopened containers at a room temperature between 46 °F to 82 °F. Please do not return 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 Warranty: All products purchased from or supplied by Palm Labs Adhesives are subject to terms and conditions set out in the contract. Palm Labs Adhesives warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Palm Labs Adhesives is considered accurate but is furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Palm Labs Adhesives 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 not infringe any patent.