

**LIQUID GASKETS, SEALANTS & ANTI-SEIZE PASTE FOR CW PUMPS ASSEMBLY**

**1.0 SCOPE**

This standard specifies the requirements of various types of liquid gaskets, sealants and anti-seize paste required for assembly of cooling water pumps.

**2.0 ADHESIVE LIQUID GASKET- VAR. 01:****2.1 DESCRIPTION:**

High performance adhesive liquid gasket whose main component is a special polymer with multiple polymerization.

Main component: Plural polymerization synthetic resin.

Filler-Reinforcer: Hydrated silicate, calcium carbonate

Solvent: Toluene, Ethyl acetate

Others: stabilizer

**2.2 FEATURES:**

1. Heat resistance
2. Water resistance
3. Oil resistance
4. Strong adhesive power
5. Low viscosity & workable

**2.3 APPLICATIONS:**

As liquid gasket on flat surfaces of flanges and casings, tightening bolts, threaded parts of implanting bolts, and joints such as driving plugs in River water, seawater or Industrial water handling pump assemblies.

**2.4 PROPERTIES:**

Color	White
Viscosity( 25° C)	3000 CP
Specific Gravity	1.2
Heating	67 ± 3%
Pressure Resistance (80 ° C)	8.3 Mpa
Serviceable Temp	-40 ~ 180 ° C

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**Revisions :****Refer to record of revisions :****Prepared :****MVSS****Approved :****MSRAM****Date :****20.06.20**

**3.0 CREVICE CORROSION PREVENTIVE LIQUID GASKET- VAR. 02:****3.1 DESCRIPTION:**

Synthetic resin polymer with zinc for crevice corrosion prevention.

Basic materials : Synthetic resin polymer.

Dispersed metal : Zn

Solvent: Hydrogen carbide

**3.2 FEATURES:**

1. Electrochemical anti corrosion property
2. Excellent adhesion
3. Non-drying

**3.3 APPLICATIONS:**

1. For use at crevices formed with parts of assemblies, bolts and nuts, gaskets, O-rings or other sealants in river water, seawater or Industrial water application pumps.

**3.4 PROPERTIES:**

Colour	Grey
Unvolatility	90 ~ 95 %
specific Gravity	2.5 ~ 2.7
Viscosity (25° C)	> 100,000 cPs
Elect. Resistance	Insulative
Press. Resistance	9 Mpa
Temp. Range	10 ~ 80 ° C

**4.0 LIQUID GASKET – NON DRYING- VAR. 03:****4.1 DESCRIPTION:**

Non-polluting, non-drying liquid gasket based on modified ester resin, which should adhere without drying. It should contain no solvent and hence should not deteriorate without age. It should allow easy disassembly of assembled parts with the resultant working.

**4.2 FEATURES:**

1. No organic solvent.
2. Not inflammable
3. Does not erode or cause rubber and plastics to deteriorate. Hence can be used for solid gaskets

**4.3 APPLICATIONS:**

1. For use on all mating surfaces, especially on surfaces, which are repeatedly assembled and dis-assembled in river water, sea water or Industrial water application pump assemblies.

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**4.4 PROPERTIES:**

Colour	Grey
Non-volatile matter	100%
Specific Gravity (25° C)	1.45
State of application	Non-drying
Viscosity (25° C)	300,000 cPs
Press. Resistance (80 ° C)	6.8 MPa
Temp. Range	-40 ~ 130 ° C

**5.0 SILICONE LIQUID GASKET- SEMI DRYING- VAR. 04:****5.1 DESCRIPTION:**

Silicon based one component white colored fluid liquid gasket which sets automatically at Room temperature upon exposure to air moisture. No hardeners, activators or heat are required. Bonding strength shall increase while hardening. The hardening process shall begin after 40 minutes at 25°C after application. The resultant rubber-like solids shall resist both heat and cold and shall maintain stability and original property under a wide range of temperature.

**5.2 FEATURES:**

1. Fluid, easy application.
2. Ideal for sealing comparatively large clearances.
3. Highly resistant to heat, cold, weather.
4. Excellent electric insulation.
5. Solvent less; minimal shrinkage.

**5.3 APPLICATIONS:**

1. For sealing comparatively large clearances in river water, seawater or Industrial water application pump assemblies.

**5.4 PROPERTIES:**

Colour	White
Sagness at 25° C	Sag
Specific Gravity (25° C)	1.01
State of application	Semi-drying
Viscosity (25° C)	70,000 cPs
Press. Resistance (80 ° C)	11.8 MPa
Temp. Range	-60 ~ 250 ° C

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**6.0 SILICONE SEALANT- SEMI DRYING- VAR. 05:****6.1 DESCRIPTION:**

Silicon based one component white colored non-fluid sealant, which sets automatically at room temperature upon exposure to air moisture. No hardeners, activators or heat are required. Bonding strength shall increase while hardening. The hardening process shall begin after 40 minutes at 25°C after application. The resultant rubber-like solids shall resist both heat and cold and shall maintain stability and original property under a wide range of temperature.

**6.2 FEATURES:**

1. Non fluid, easy mounding.
2. Highly resistant to heat, cold, weather.
3. Excellent electric insulation.
4. Solvent less; minimal shrinkage.

**6.3 APPLICATIONS:**

1. For filling up cavities of setscrew and cap screw heads in river water, seawater or Industrial water application pump assemblies.

**6.4 PROPERTIES:**

Colour	White
Sagness at 25° C	Non-Sag
Specific Gravity (25° C)	1.05
State of application	Semi-drying, elastic
Viscosity (25° C)	Non-fluid
Press. Resistance (80 ° C)	9.3 MPa
Temp. Range	-60 ~ 250 ° C

**7.0 ANTI-SEIZING AGENT & LUBRICANT- VAR. 06:****7.1 DESCRIPTION:**

Molybdenum disulfide (MoS<sub>2</sub>) based lubricant which forms an effective lubricating film on the applied parts to impart excellent lubricity for heavy loads, prevent abrasion, galling and eliminate the possibility of seizing in close tolerance clearance fits.

Main component: Molybdenum disulfide & synthetic grease.

**7.2 FEATURES:**

1. Eliminates seizing on fitted or threaded parts and makes assembly and disassembly easy.
2. Eliminates heating, seizing, abrasion, etc.
3. Excellent pressure resistance

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**7.3 APPLICATIONS:**

1. For easy trial assembly and disassembly by preventing seizure of force fitted, drive fitted, or quenched parts and making those fitting work smoothly.
2. For preventing abrasive vibration on rotating or sliding parts.
3. For preventing fretting corrosion of fitting parts.

**7.4 PROPERTIES:**

Colour	Black
Friction coefficient	0.005
Specific Gravity (25° C)	1.44 ± 0.05
Consistency	330-360
Viscosity (25° C)	Paste
Temp. Range	-60 ~ 400 ° C

**8.0 PROVENNESS:**

Every compound shall have proven record in the applications mentioned against that item.

**9.0 TEST CERTIFICATES:**

The vendor shall provide following test certificates corresponding to the material supplied.

Pressure resistance: Var. 01, 02, 03, 04 & 05

Viscosity: Var. 01, 02, 03 & 04

Coefficient of friction: Var. 06

**12.0 MATERIAL SAFETY DATA SHEET:**

Material safety datasheet shall be provided with each individual pack of the material.

**13.0 PRESERVATION AND PACKING:**

1. The material shall be properly packed to protect from damage during transport.
2. Quantities of each pack of compound shall be 100g or 200g , preferably in tubes.
3. The package shall carry appropriate symbols such as keep dry, flammable etc. relevant to the properties of the packed material.

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**14.0 MATERIAL CODES:**

VAR No.	Description	Material code
01	ADHESIVE LIQUID GASKET	FP9760312018
02	CREVICE CORROSION PREVENTIVE LIQUID GASKET	FP9760312026
03	LIQUID GASKET – NON DRYING	FP9760312034
04	SILICONE LIQUID GASKET- SEMI DRYING	FP9760312042
05	SILICONE SEALANT- SEMI DRYING	FP9860312052
06	ANTI-SEIZING AGENT & LUBRICANT	FP9860312060

**15.0 SHELF LIFE, POT LIFE & CURING TIME:**

The following shall be the minimum shelf life (un-opened) of the materials at the time of supply:


DECRPTION OF MATERIAL	Material code	Shelf life – Min.
ADHESIVE LIQUID GASKET	FP9760312018	12 months
CREVICE CORROSION PREVENTIVE LIQUID GASKET	FP9760312026	12 months
LIQUID GASKET – NON DRYING	FP9760312034	24 months
SILICONE LIQUID GASKET- SEMI DRYING	FP9760312042	12 months
SILICONE SEALANT- SEMI DRYING	FP9860312052	12 months
ANTI-SEIZING AGENT & LUBRICANT	FP9860312060	24 months

The pot life and curing time (if applicable) shall be informed by the vendor. The pot life of the above materials shall not be less than 25 minutes.

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TD-106-3	Rev No. 5	 HYDERABAD	<b>PRODUCT STANDARD PUMPS HYDERABAD</b>		<b>FP60312</b>		
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			Rev. No.	Date	Revision Details	Revised By	Approved By
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