



## **MDM SERVICES(Cardiff)LTD.**

New Quay Road  
Felnex Industrial Estate  
Newport  
NP19 4PL  
Tel.No. (01633) 277277/ 277288  
Fax.No.(01633) 277233  
Email: [mdm@mdmservices.co.uk](mailto:mdm@mdmservices.co.uk)  
Website: [www.mdmservices.co.uk](http://www.mdmservices.co.uk)



# **Technical Data Sheet**

## **E-SEAL 810 Pipe & Thread Sealant**

### **Description**

Anaerobic adhesive for sealing of metal thread pipe joints.

Suitable for gas, LP gas, compressed air, gasoline and oil, industrial fluids ,CFC, potable water and several chemicals.

Low friction coefficient will assure easy assembly.

Thixotropic property prevents migration from thread of the sealant before or during curing.

Cured product provides elastic film.

It replaces PTFE tape and yarn and gives instant sealing against moderate pressure.

It seals against gas, water, LPG, hydrocarbons, oils and other chemicals.

Suitable for use with ethanol & methanol based petroleum products

Thixotropic property prevents migration from thread of the sealant before or during curing.

Shocks and vibrations resistant; unaffected sealing properties in the temperature range from -55 to +150°C.

Easy dismantling is assured even after years.

### **Approvals for natural gas and LP gas in vapour state**

**Europe:** approved to EN751-1 by DIN-DVGW NG 5146AR0574 from -20° C to +150° C up to 2" pipe size.

**Australia:** approved by AGA n.5047 up to 10 bar and 2" pipe size.

### **Physical properties**

- |                                       |                             |
|---------------------------------------|-----------------------------|
| ➤ Composition:                        | anaerobic methacrylate      |
| ➤ Colour:                             | Off - white to ivory        |
| ➤ Fluorescence :                      | Under blue light            |
| ➤ Viscosity (25°C - mPa.s):           | 17.000 – 50.000 thixotropic |
| ➤ Specific weight (25°C - g/ml):      | 1,05                        |
| ➤ Max diameter of thread/gap filling: | 2" - 0,30 mm                |
| ➤ Flash point:                        | > 100°C                     |
| ➤ Shelf life 25°C:                    | 1 year                      |

### **Curing performance**

Curing rate depends on the assembly clearance, material surfaces and temperature.

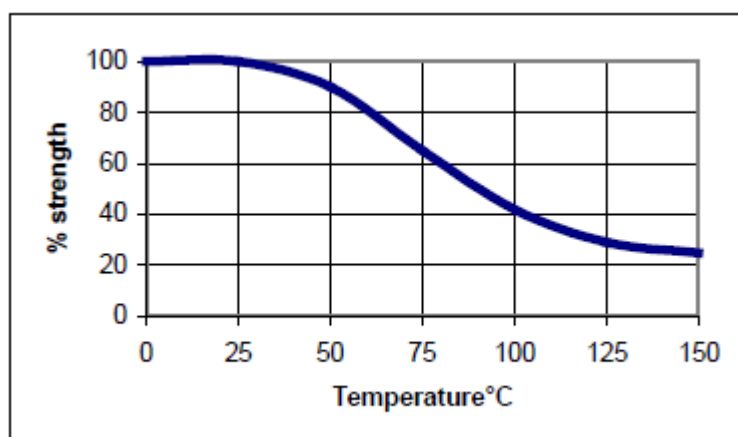
Functional strength is usually reached in 1 – 3 hours and full curing takes 24 – 36 hours.

In case of passive surfaces and/or low temperature a fast cure can be obtained using E-SEAL Activator

### **Environmental Resistance**

The graph below shows mechanical strength vs temperature

Steel Specimen ASTM1002/DIN 53283



### **Curing properties**

Bolt M 10 x 20 - quality 8.8 - Nut h = 0,8.d at 25°C

- Handling cure time: 20 - 40 minutes
- Functional cure time: 1 - 3 hours
- Full cure time: 5 - 10 hours
- Shear strength (ISO 10123): 4 - 6 N/mm<sup>2</sup>
- Tensile strength (ASTM D-2095): 3 - 5 N/mm<sup>2</sup>
- Elongation at break : over 100%
- Locking torque (ISO 10964)
  - breakaway: 6 - 11 N.m
  - prevailing: 2 - 5 N.m
- Temperature range: -55 +150°C

\*\* Note Locking seal test for 24 hours at 230°C on 1 ½" zincate fittings

### **Chemical Resistance**

Aged under conditions below after 24 hours from polymerisation at indicated temperature

Substance	°C	Resistance after 100 h	Resistance after 500 h	Resistance after 1000 h
Motor oil	125	excellent	excellent	excellent
Gear box oil	125	excellent	excellent	Excellent
Gasoline	25	Excellent	Excellent	Excellent
Water/glycol 50%	87	Excellent	Excellent	Good
Brakes oil	25	Excellent	Excellent	Good

\* For information on resistance with other chemicals, contact MDM Technical Service

### **Directions for use**

- The product is recommended for use on metal surfaces.
- Clean and degrease parts before bonding with E-SEAL Pipe Sealant Degreaser / Cleaner
- Apply product to fill completely the gap, assemble parts and hold on for curing time.
- Liquid product can damage coating, some plastics and elastomers and late stress-cracking events might be induced if used with some thermoplastics.
- For application on non metal materials, contact MDM Technical Service.
- For disassembly, use normal tools and eventually heat pieces at 150/250°C, remove any residue of cured product mechanically and clean parts with Acetone

### **Storage**

Keep product in a cool and dry room at no more than +25°C. To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact MDM Technical Service

### **Safety and handling**

Consult Material Safety Data Sheet

### **Note**

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