

# **Technical Information Sheet**

## **Loctite Product 549**

### **PRODUCT DESCRIPTION**

LOCTITE® Product 549 is a high viscosity, high strength anaerobic adhesive which cures rapidly between metal surfaces where air is excluded. It is relatively slow curing and has good chemical resistance.

### **TYPICAL APPLICATIONS**

Seals close fitting joints between rigid metal faces and flanges. Provides resistance to low pressures immediately after assembly of flanges. Typically used as a form-in-place gasket on rigid flanged connections e.g. gearbox and engine casings, etc.

### **PROPERTIES OF UNCURED MATERIAL**

|                              | <b>Typical Value</b> |
|------------------------------|----------------------|
| Chemical Type                | Dimethacrylate Ester |
| Appearance                   | Orange               |
| Specific Gravity @ 25°C      | 1.1                  |
| Viscosity @ 25°C, mPa.s (cP) |                      |
| Brookfield RVT               |                      |
| No. 6 Spindle, 20rpm         | 20,000 mPa.s         |
| Flash point, °C              | >100                 |
| Toxicity                     | Low                  |

### **TYPICAL CURING PERFORMANCE**

|                                    |          |
|------------------------------------|----------|
| Time to achieve handling strength: | 5 hours  |
| Full cure:                         | 24 hours |

Note: When used on passive metal surfaces, pretreatment with Loctite Activator T is recommended.

### **TYPICAL ENVIRONMENTAL RESISTANCE**

Product 549 has comparable Hot Strength and Heat Aging to Loctite Product 518 and Solvent Resistance comparable to Loctite Product 510.

### **GENERAL INFORMATION**

**This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidising materials.**

**For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).**

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). Users are recommended to confirm compatibility of the product with such substrates.

### **Directions for use**

For best performance surfaces should be clean and free of grease. The product is designed for close fitting flanged parts with gaps up to 0.25mm. Apply manually as a continuous bead or by screen printing to one surface of the flanges. Low pressures (<0.5bar) may be used when testing to confirm a complete seal immediately after assembly and before curing. Flanges should be tightened as soon as possible after assembly to avoid shimming.

### **Storage**

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C (46°F to 82°F) unless otherwise labelled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact your local Technical Service Centre.

### **Data Ranges**

The data contained herein may be reported as a typical value and/or range (based on the mean value  $\pm 2$  standard deviations). Values are based on actual test data and are verified on a periodic basis.

### **Note**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a licence under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.