

# GT Thread Sealants

Anaerobic Gasketing Compounds



## Fast Acting Glandless Seal:

Parker GT Thread Sealants are a high viscosity liquid or paste generally used to seal or secure between threaded flange or tube applications. It works like a liquid gasket, eliminating sealing elements such as o-rings and tapes. Conventional seals need machined glands, sometimes with special finishing. Parker GT Series Compounds avoid the necessity of glands, reducing machining time required for conventional seals.

When applied, these compounds quickly cure in the absence of air, while excess product will remain liquid. Additionally, they are compatible with oils and most hydraulic fluids.



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## Benefits:

- Quick and easy application
- Prevents galling and corrosion
- Outstanding temperature and solvent resistance (see properties chart on next page)
- Immediate low pressure sealing
- Some grades contain PTFE for ease of assembly
- Bolt installation torque will not increase on long threads



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## Application

Recommended for sealing metal tapered pipe threads and fittings up to 2 inches (5 cm). It is typically used for applications in the chemical processing, petroleum refining, pulp/paper, waste treatment, textile, utilities/power generation, marine, automotive, industrial equipment, fluid power systems, bulk gas compression and transport industries.

## How to select a Thread Sealant:

All applications have three aspects to be considered:

1. Assembly
2. Use
3. Disassembly

Required performance for each of these three aspects and substrates are the key factors for successful application.

### 1. Assembling:

**Surface Condition:** Surfaces should be cleaned of all contaminants such as oils. When present, contaminants can reduce adhesion effectiveness.

**Types of substrate:** Thread Sealant cure time will vary based on substrate material and use of activator. Inactive substrates will need activators to cure and/or improve cure time and strength. Please consult the Surface Activity Table 1.

**Viscosity selection:** The viscosity choice depends on how much "void" space is between the mating threads. Tight fitting threads require low viscosity in order to penetrate gaps while loose fitting threads need higher viscosity to avoid air gaps

and bubbles. Product does not cure in the presence of air making viscosity choice critical.

### 2. Use:

**Temperature:** The Parker GT Thread Sealants temperature range should be kept within the specified temperature range for the corresponding product (see Property Chart below).

**Fluid resistance:** Product is compatible with most petroleum based engine and hydraulic oils as well as gasoline, brake fluid, water glycol mixes, ethanol and acetone. Product is not recommended with strong acids, chlorine or oxygen. For non-standard fluids specific development is required.

### 3. Disassembling:

Due to their applications, Parker GT Sealants are low to medium torque, for easier disassembly.

maximum strength and cure speed at room temperature. Table 1 shows comparison of substrate and it's relationship to cure activity.

## Usage Guidelines

- For best performance, surfaces should be clean and free of grease
- Product should be applied to the thread engagement area in sufficient quantity to fill up all the engaged threads
- Use accepted trade practices to assemble and wrench-tighten fittings until proper alignment is obtained
- The Parker GT Thread Sealants perform best in thin bond gaps (0.05mm)
- Very large thread sizes may create large gaps that will affect cure speed and strength
- For maximum pressure and solvent resistance, allow at least 24 hours set time before pressurizing system

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

## Storage

- Store product in a clean, dry location, in its original container, between 47°F (8°C) and 83°F (28°C)
- To avoid product contamination, do not return used product to original container. Parker Hannifin does not assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your Parker Applications Engineer

## Substrate activity comparison

The rate of cure will depend on the substrate used. Anaerobic based materials will react faster and stronger with active metals. However, inactive metals will require the use of an activator to obtain

Surface Activity		
Active	Med-Active	Inactive
Unplated Steel	Zinc	Galvanized Zinc
Copper	Aluminum	
Brass	Stainless Steel	
Iron		
Nickel		

Table 1

## GT Thread Sealants Typical Property Chart

Product	Working Temperature	Activator Used	Max. Gap Allowed mm	Viscosity		Total Setting Time Hours	Partial Setting Time, as noted	Chemical Base	Cure Activator	Torque
				mPa·s (cP)						
GT21	-58 to 302°F -50 to 150°C	ST02	0.8	19000 to 60000		24	150 min. to 3 hrs.	Methacrylate Ester	Anaerobic	Low
GT24	-58 to 392°F -50 to 200°C	ST02	0.5	540000		24	150 to 180 min.	Methacrylate Ester	Anaerobic	Low

