

## BIODIESEL-RESISTANT SEALANT - LH055



### Permabond LH055 is a PFAS-free thread sealant that offers outstanding resistance to biodiesel and related products.

The use of biodiesel as an alternative to regular diesel is growing, particularly in the haulage industry, which is looking for greener, more environmentally friendly fuels. As a result, manufacturers of vehicles and fuel storage and supply systems are actively seeking adhesive technologies that will seal parts coming into contact with these fuels, without any compromise in performance. Enter Permabond LH055, an anaerobic thread sealant with excellent resistance to biodiesel.

During testing, LH055 showed no loss of strength, and even a slight increase, after being immersed for 500 hours in biodiesel (HVO100). It also performed very well submerged for the same amount of time in AdBlue®/DEF, and windscreen washer fluid.

LH055 bonds metal threaded parts together with ease, forming an instant durable seal that can be undone later when maintenance is required. PFAS-free and carrying approvals for both gas and drinking water, this product is highly versatile and future-ready.

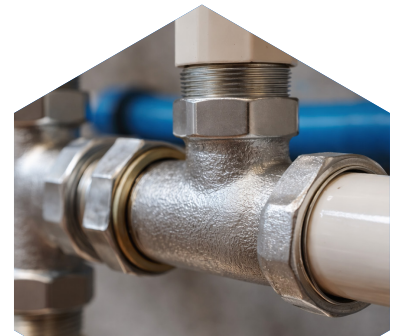


### KEY FEATURES:

- ▶ Highly resistant to contact with biodiesel (HVO100)
- ▶ Withstands contact with AdBlue®/DEF and windscreen washer fluid
- ▶ PFAS-free
- ▶ Easily seals metallic threaded joints
- ▶ Forms an instant pressure seal
- ▶ Low breakaway torque for easy future maintenance
- ▶ DVGW gas approval
- ▶ WRAS approved for contact with drinking water
- ▶ Solvent-free
- ▶ Optimised viscosity for good coverage of threads

### TYPICAL APPLICATIONS:

- Biodiesel transfer pumps
- Fuel line fittings
- Fuel distribution equipment
- Metallic connectors
- Metallic nozzles
- Fuel tank connections
- Fuel fill pipes and associated fittings
- Submersible pumps
- Tank seals & threaded pipe joints



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The table below shows the average break torque strengths of LH055 on M10 bright zinc-plated nuts and bolts after exposure to common automotive fluids:

Exposure time	LH055
24 Hours @23°C (73°F)	7.7 N•m * (68 in.lb)
500 Hours @23°C (73°F)	<b>HVO100</b> = 8.5 N•m (75 in.lb)
500 Hours @50°C (122°F)	Windscreen Wash = 7.3 N•m (65 in.lb)
	AdBlue = 8.77 N•m (78 in.lb),
1000 Hours @23°C (73°F)	Std = 8.3 N•m (73 in.lb)
	<b>HVO100</b> = 7.5 N•m (66 in.lb)
1000 Hours @50°C (122°F)	Std = 6.8 N•m (60 in.lb),
	AdBlue = 6.93 N•m (61 in.lb)
	Windscreen Wash N•m = 6.47 (57 in.lb)

\*Standard break torque strength, unexposed to biodiesel or other substances

### What is biodiesel?

**Biodiesel** is a renewable fuel made from vegetable oils, animal fats, or recycled cooking oils. It is commonly used as an alternative to conventional diesel in transportation, agriculture, and industrial equipment. Compared with petroleum diesel, biodiesel can be more chemically aggressive to certain materials, causing rubber gaskets and rubber O-ring seals to swell and degrade over time.

Products specifically designed to resist biodiesel help ensure long-term durability and reliable performance in fuel-exposed applications. Ensuring seals are compatible with biodiesel is vital when doing vehicle conversions, otherwise problems could be encountered further down the road with leaky seals or particulates breaking away and blocking expensive injector valves and other engine components.



## DESCRIPTION

The following technical data for Permabond LH055 is a guideline and does not constitute a specification. For full technical information, please refer to the technical data sheet, available at [permabond.com](http://permabond.com). Please contact Permabond to discuss your bonding project.

	LH055
Description	Biodiesel-resistant pipe sealant
Appearance	White
Features	Biodiesel-resistant, PFAS-free, ideal for future servicing of pipe joints
Viscosity @25°C (77°F)	25,000 (mPa.s) cP
Max gap fill	0.5mm (0.02 in)
Max thread size	M56 (2 in)
Shear strength (Steel collar & pin ISO 10123)	5 MPa (725 psi)
Handling strength (M10 zinc) @23°C/73°F	30 minutes
Full strength (M10 zinc) @23°C/73°F	24 hours
Service temperature	-55 to 150°C (-65 to 300°F)
Storage temperature	5 to 25°C (41 to 77°F)
Packaging	50ml & 250ml tubes

### What are PFAS?

PFAS (per- and polyfluoroalkyl substances) are a group of man-made chemicals valued for their resistance to heat, chemicals, and moisture. They can enhance the durability and performance of adhesive products. However, they are highly persistent in the environment (known as 'forever chemicals') and can be harmful to human health, leading to increasing legal scrutiny and demand for PFAS-free adhesive alternatives, such as Permabond LH055. PFAS-free LH055 is ideal for replacing PFAS-containing PTFE Tape!



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