

### Anti-Freeze/Summer Coolant

Therma-Gard is a fully formulated summer coolant and winter anti-freeze that delivers full protection from corrosion, cavitation, foaming, rust and scaling. Therma-Gard is designed to defend your machine against high-heat conditions.

### **Applications**

- Developed specifically for John Deere engines
- Engineered for heavy-duty applications where automotive grade products do not always provide high enough levels of protection
- Suitable for many liquid cooled engines, petrol or diesel, such as those found in other farm machinery, cars and trucks.

#### Features/Benefits

- 6 year/6000 hour service life to reduce downtime and lower operating costs\*
- High thermal and oxidative stability required by engines equipped with cooled exhaust gas recirculation (EGR)
- Provides excellent protection against corrosion and deposits, extends water pump life and prevents cylinder liner cavitation
- Ready to use premix formulation, for top up or refill and guarantees water quality and coolant performance.

# Protect your Entire Fleet

It doesn't have to be a John Deere machine to get John Deere protection. Therma-Gard™ can protect any liquid-cooled engine.

Use Therma-Gard for:

- -On highway vehicles
- -Irrigation pumps
- Generators
- Compressors
- Any other liquid-cooled engine

Therma-Gard meets the requirements of:

- ASTM D2610 for diesel engines
- ASTM D3306 for petrol engines

Therma-Gard is engineered to meet the exact requirements of your machine. You can avoid most system failures by simply using the right coolant.

#### THERMA-GARD AUSTRALIA

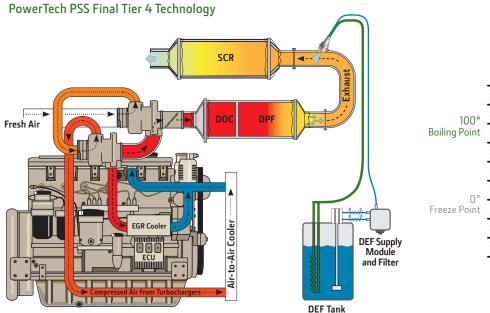
Size	Form	Part Number	Qty
5 L	Pre-Mix	CP6175	3
10 L	Pre-Mix	CP6176	1
20 L	Pre-Mix	CP6177	1
250 L	Pre-Mix	CP6178	1
5 L	Concentrate	CP6179	3

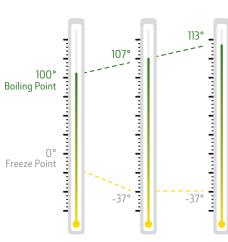
#### THERMA-GARD NEW ZEALAND

Size	Form	Part Number	Qty
5 L	Pre-Mix	CP6175NZ	3
10 L	Pre-Mix	CP6176NZ	1
20 L	Pre-Mix	CP6177NZ	1
250 L	Pre-Mix	CP6178NZ	1
5 L	Concentrate	CP6179NZ	3

### **Engine Temperatures Rising**

Engine radiator top tank temperatures are increasing, as part of the Tier 4 exhaust emission reduction strategy for off-road vehicles. This chart indicates the increases we are experiencing with Tier 4 engines. Temperatures rising from  $107^{\circ}$  C, now up to  $113^{\circ}$  C under a 15 psig pressure cap.





PowerTech PSS 4.5L engine configuration shown.

# Proven Protection for your Cooling System

Therma-Gard™ engineers see the challenges engine cooling systems face every day in test cells and in field tests. Due to modern engines experiencing higher temperatures, and to make sure John Deere develop the best coolant to protect against these conditions, we've put Therma-Gard to very aggressive high-heat tests comparing how other coolants protect under the same conditions. The metals protected by Therma-Gard lost considerably less mass than those protected by other coolants. See for yourself!

#### THERMAL OXIDATIVE STABILITY COMPARISON

		Comparative market coolant type		
Metal Type	Therma-Gard	Heavy Duty Universal	Long Life	Passenger Car Automotive
Copper	28	269	205	240
Solder	5	24	32	26
Brass	17	68	123	151
Steel	6	86	29	173
Cast Iron	5	386	160	361
Aluminium	0	371	342	34

## Test pieces from the JDQ 1522 Test



## Nitrite Free

John Deere promotes the use of

John Deere engine can completely block a radiator in under 75 hours of operation.

Please refer to your machines operational manual and



Therma-Gard extends the life of your water pump. Moving components in the cooling system, such as water pump impellers are also subject to cavitation problems. Incorrect coolant promotes erosion of the water pump impeller and the surrounding areas. You can prevent this type of problem by using Therma-Gard.







**Incorrect Coolant** 



**Plain Water** 



\*Rating applies when complete cooling system flush is performed prior to use.

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