# TPRQUE ITUP



Engineered for protection, performance and durability.

Regular cooling system maintenance is essential to maintaining engine uptime. It is a common misconception that coolant only needs to be topped up or filled if low. Coolant does wear out and requires replacement at certain intervals. You can avoid most system failures by simply using the right coolant for the application.

#### What does coolant do?

Understanding how coolant operates in a system can help to understand the major benefits of coolant. With new engines designed to run at up to 113°C water is not a viable option for a cooling system, as it boils at 100°C. What if there was a way to increase the boiling temperature of water? Coolant can! It is made with ingredients that have a higher boiling point then water. By using coolant and having the cooling system under pressure the boiling temperature within a cooling system can be increased to allow an engine to run at higher temperatures without overheating. This allows better combustion, performance and life from an engine.

Oxidisation is another key aspect in a cooling system, with engines susceptible to oxidisation/ rust due to their raw metal components. Coolants can contain rust inhibitors which assist in the reduction of this oxidisation, increasing the life and up time of a machine. One of the key features of John Deere coolant is its nitrite-free formulation which assists with cooling system protection.

JOHN DEERE

REDPE

THERMA-GARD

SUILT TO LAST

### John Deere Therma-Gard<sup>™</sup>

Simply, Therma-Gard<sup>™</sup> has been designed and engineered for John Deere equipment and meets the exact requirements of the machine.

#### Benefits of Therma-Gard<sup>™</sup>

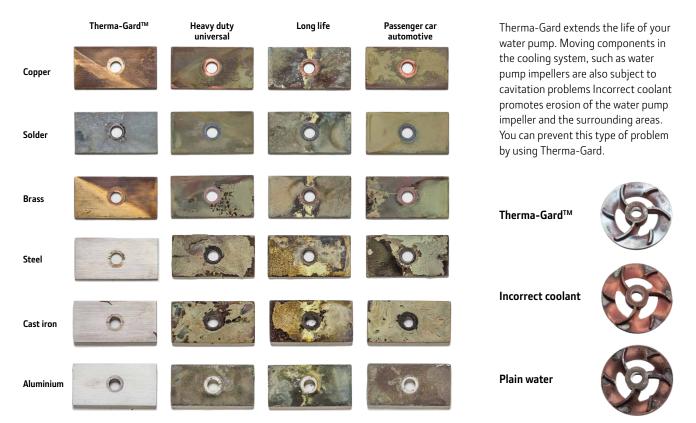
- 6 year/6000 hour service life to reduce downtime and lower operating costs\*
- High thermal and oxidative stability required by engines equipped with cooled exhaust gas recirculation (EGR)
- Provides excellent protection against corrosion and deposits, extends water pump life and prevents cylinder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

# Proven protection for your cooling system

Therma-Gard<sup>™</sup> 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!

### Test pieces from the JDQ 1522 Test





Please contact your local dealer for details. John Deere reserves the right to change specification and design of all products described in this literature without notice. John Deere's green and yellow colour scheme, the leaping deer symbol, and JOHN DEERE are trademarks of Deere & Company. All photography and illustrations contained herein are copyrighted assets of Deere & Company. Rating applies when complete cooling system flush is performed prior to use.

JohnDeere.com.au JohnDeere.co.nz