

TECHNISCH RENNEN ENGINE COOLANT PRODUCT DATA SHEET

Technisch Rennen Commercial Concentrate Green Engine Coolant is Green colored, superior, fully formulated Hybrid technology engine coolant. This Hybrid technology coolant has the advantage of being more robust than both conventional and organic acid technology (OAT) engine coolants. This low silicate, phosphate and amine free product is recommended for use in automotive (aluminum compatible), lightduty and heavy-duty diesel applications namely on-road truck, off-road, farm and marine. It provides excellent high temperature aluminum protection.

It does not require an initial charge of supplemental coolant additives (SCAs) upon initial fill in heavy duty diesel applications as the product is specially formulated to protect heavy duty diesel wet sleeveliners. SCA addition is application dependent and should only be added as and when required by the vehicle's OEM. This coolant is compatible with coolant filters and heavy duty diesel SCAs and coolant extenders. When used as a 50% coolant with softened or de-ionized water, this engine coolant offers the following advantages:

- Low silicate
- Phosphate and amine free
- OEM approved
- Hard water compatible
- No initial SCA requirement at initial fill
- Universal use, fully meets or exceeds standard industry requirements for automotive, light duty, and heavy duty diesel applications
- Product is compatible with both conventional and OAT coolants (although to get best performance [regarding issues such as extended life and time between SCA additions] it is best to flush the old coolant and replace with our Green Engine Coolant)

Product is compatible with standard SCAs and coolant extenders

Technisch Rennen Commercial Concentrate Green Engine Coolant is suitable for the performance requirementsof the following engine coolant specifications:

- ASTM D-3306, D-4985, D-6210
- Caterpillar EC1
- Cummins 14603
- DaimlerChrysler
- Ford
- GM
- Hyundai
- JCB
- VECV
- MAN 324
- New Holland WSN-M97B18-D
- Tata Motors
- Scania
- SAE J1034, J1941
- TMC RP 329
- Volvo Heavy Truck
- Suitable for Toyota

TECHNISCH RENNEN ENGINEERING PVT LTD

CIN: U74999MH2016PTC283939 I <u>www.technischrennen.com</u>

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Technisch Rennen Commercial Concentrate Green Engine Coolant Performance Testing

Coupon	ASTM I	ASTM D-1384		ASTM D-2570	
	Glassware	Glassware Corrosion		Simulated Service	
Type ¹	Test Results ¹	Max. Spec. ¹	Test Results ^{1,2}	Max. Spec. ¹	
Copper	1.7	10	1.1	20	
Solder ³	4.3	30	21.6	60	
Brass	0.6	10	1.6	20	
Steel	0.1	10	+0.8	20	
Cast Iron	+0.8	10	+1.2	20	
Aluminum	+0.3	30	+2.5	60	

¹ Wt. /loss coupon in mg.

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² Copper/brass radiator results.

³ Regular 70/30 lead on copper/brass coupons.



Technisch Rennen Commercial Concentrate Green Engine Coolant Performance Testing

ASTM Test Procedure	Test Results	Specification
D4340 Heat Rejecting Aluminum Corrosion	0.16 mg/cm ² /week	1 maximum
D2809 Aluminum Water Pump Cavitation-	10	8 minimum
Erosion Corrosion (rating from 1 to 10)		

Shelf-life stability: minimum 2 years from date of manufacture

Technisch Rennen Commercial Concentrate Green Engine Coolant Physical & Chemical Properties

Test	Performance	Test Method
pH 50%	7.6 - 8.5	ASTM D-1287
Reserve Alkalinity (ml)	6 min.	ASTM D-1121
Specific Gravity (15.6°C/60°F)	1.125 - 1.135	ASTM D-1122
Freeze Point (50% vol.)	-37°C/-34°F	ASTM D-1177
Foam Volume (ml)	50 max.	ASTM D-1881
Break Time (sec)	5 max.	ASTM D-1881
Flash Point	116°C/240°F	ASTM D-92
Fire Point	120°C/248°F	
Ash Content (wt. %)	5 max.	ASTM D-1119
Odor	Characteristic	
Color	Green	
Total Glycols (Weight %)	94.0 min.	
Inhibitors and dye (Weight %)	5.0 max.	
Total Apparent Water (Weight %)	3.5 max.	
Chloride ppm	25 max.	ASTM D-3634
Silicon (ppm)	185 max.	ICP

The performance and physical property data described for this product is typical results not sale specifications except where maximum or minimum is indicated.

Notice: Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether products and the information

in this document is appropriate for their use and for ensuring that their workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Technisch rennen's warranty is limited to the claims of product meeting stated specifications. It is the responsibility of the end user to determine product suitability as recommended in the Owner's Manual and to follow enginemanufacturer's instructions.

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