

UNICO TEC (PTY) LTD

COOLANT PREMIX	TECHNICAL DATA SHEET	Date of issue	10/02/2016
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IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Trade name	: Engman's Super RTU Antifreeze
Product name	: Glysantin G48 Premix
Product type	: Coolant Premix
Supplier	: Unico Manufacturing Co. (PE) (Pty) Ltd.
Address	: 6 Celebes Road, Island View, Durban, South Africa
Contact number	: +27 (31) 466 1541/2
Emergency contacts	: Vishen Kanhai +27(64) 752 2197/ +27(82) 340 3521

DESCRIPTION

Glysantin® G48® Ready Mix is a ready-to-use engine coolant based on ethylene glycol.

Glysantin G48 Ready Mix contains a hybrid corrosion inhibitor package based on salts of organic acids and silicates (Hybrid Coolant).

Glysantin G48 Ready Mix is free of nitrites, amines and phosphates.

Properties

Glysantin G48 Ready Mix is ready for use. Further dilution with water is not recommended.

Glysantin G48 Ready Mix is a 50:50 mixture of Glysantin G 48 and water. For the preparation of the mixture demineralized water with low electrical conductivity is used, in order to maximize corrosion protection and to minimize hard water scale deposits in the cooling system.

Glysantin G48 Ready Mix provides frost protection down to -38 °C.

Glysantin G48 Ready Mix was developed to protect engines against corrosion, overheating and frost damage. It gives a high degree of corrosion protection to engine components such as radiators, cylinder blocks/heads, water pumps and heat exchangers, and avoids deposits.

Glysantin G48 fulfills the requirements of the following coolant standards: AS 2108-2004, ASTM D 3306, ASTM D 4985, SAE J1034, AFNOR NF R 15-601, ÖNORM V 5123, CUNA NC 956-16, JIS K 2234:2006, SANS 1251:2005, China GB 29743-2013 and BS 6580:2010.

Furthermore Glysantin® G48® is officially approved by:

- | | |
|---|--|
| • BMW | BMW GS 94000 |
| • Bez. Reg. Arnsberg,
Dept. of Mining and Energy | 84.12.22.63-2001-2 |
| • German Army | TL 6850-0038/1 |
| • Daimler/Mercedes-Benz | MB-Approval 326.0
(for G48 Ready Mix) |
| • Deutz | DQC CA-14 |
| • Jenbacher | TA-Nr. 1000-0201 |
| • Liebherr | Minimum LH-00-COL3 |

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- MAN MAN 324-NF
- MTU MTL 5048
- Opel/General Motors B 040 0240
- Porsche for 924, 928, 944, 968
- Saab 6901599
- VW/Audi/Seat/Skoda TL 774-C

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Miscibility Since the special advantages of Glysantin G48 Ready Mix will only be achieved when Glysantin G48 Ready Mix is used exclusively, mixing Glysantin G48 Ready Mix with other Glysantin coolants or products from other producers is not recommended.

Chemical nature Ethylene glycol and water with corrosion inhibitors

Appearance Clear liquid

Physical data	Density, 20 °C	1.072 – 1.074 g/cm ³	DIN 51 757-3
	Refractive index, 20 °C	1.385 – 1.387	DIN 51 423-2
	Boiling point	min. 105 °C	ASTM D 1120
	pH value	7.9 – 8.3	ASTM D 1287
	Reserve alkalinity	6 – 8 ml	ASTM D 1121
	Ash content	max. 1.0 %	ASTM D 1119
	Water content	47 – 51 %	DIN 51 777-1
	Kinematic viscosity		DIN 51 562
	at 0 °C	ca. 8.8 mm ² /s	
	at 20 °C	ca. 4.1 mm ² /s	
	at 80 °C	ca. 1.0 mm ² /s	
Frost protection	Freezing point	below -38 °C	ASTM D 1177

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Foaming characteristics Foam volume / break time max. 50 ml / 3 s ASTM D 1881

Electrical conductivity at 23 °C approx. 4 mS/cm ASTM D 1125

Corrosion Test Data for Glystantin® G48®

Glassware Corrosion Test	ASTM D 1384	
	Metal coupons	typical weight change mg/coupon
		ASTM D 3306 limit mg/coupon
	Copper	- 0.1 10 max
	Solder	- 0.3 30 max
	Brass	- 0.2 10 max
	Steel	0.2 10 max
	Cast iron	1.0 10 max
	Cast aluminum	1.1 30 max
 Heat Transfer Corrosion Test	 ASTM D 4340	
		typical corrosion rate mg/cm ² /week
		ASTM D 3306 limit mg/cm ² /week
	Cast aluminum	-0.07 *) 1.0 max
 Simulated Service Corrosion Test	 ASTM D 2570	
	Metal coupons	typical weight change mg/coupon
		ASTM D 3306 limit mg/coupon
	Copper	- 8.8 20 max
	Solder	0.0 60 max
	Brass	- 10.7 20 max
	Steel	- 0.1 20 max
	Cast iron	1.1 20 max
	Cast aluminum	1.2 60 max

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**Cavitation Erosion Corrosion
Test**

ASTM D 2809

Aluminum water pump

9

8 min

Quality Control

The above-listed data represent average values at the time of going to press of this Data Sheet. They are intended as a guide to facilitate handling and cannot be regarded as specified data. Specified product data are issued as a separate product specification.

Packaging

Glysantin G48 Ready Mix is available in 230 kg drums and 1.5 L cans.

Storage Stability

Glysantin G48 Ready Mix has a shelf life of at least three years when stored in originally closed, air-tight containers at temperatures of maximum 30 °C. Do not use galvanized containers for storage.

Color

Glysantin G48 Ready Mix is available in blue-green.

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Safety

When using this product, the information and advice given in our Safety Data Sheet should be observed. Due attention should also be given to the precautions necessary for handling chemicals

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.