



A Brand of BASF – We create chemistry

# GLYSANTIN® G40®

GLYSANTIN® G40® is an engine coolant concentrate based on ethylene glycol that needs to be diluted with water before use. GLYSANTIN® G40® contains a corrosion inhibitor package based on salts of organic acids and silicates (Si-OAT coolant). GLYSANTIN® G40® is free from nitrites, amines, phosphates, and borates.

## Properties

GLYSANTIN® G40® protects engines against corrosion, overheating and frost. It effectively prevents corrosion and deposits in the cooling system with its vital parts, the coolant channels in engine block and cylinder head, the radiator, the water pump, and the heater core.

Product properties are identical for the respective **ECO BMB 100** product.

GLYSANTIN® G40® and GLYSANTIN® NA40® are chemically identical; GLYSANTIN® NA40® is the product name for the North American market.

GLYSANTIN® G40® fulfills the requirements of the following coolant standards:

- AS 2108-2004, ASTM D3306, ASTM D4985, SAE J1034, ÖNORMV 5123, CUNA NC 956-16, JIS K2234:2006, SANS 1251:2005, China GB 29743-2013 and BS 6580:2010.

GLYSANTIN® G40® is officially approved by the following OEMs:

- |   |   |
|---|---|
| • VW / Audi / Seat / Skoda /<br>Lamborghini / Bentley / Bugatti | TL 774-G                                      |
| • Porsche   | From MY 1996                                  |
| • Mercedes-Benz Cars  | MB-Approval 325.6                             |
| • Daimler Truck and Buses                                       | DTFR 29C120<br>(previously MB-Approval 325.5) |
| • MAN Truck & Bus   | MAN 324 Typ Si-OAT                            |
| • Cummins   | CES 14603                                     |
| • MTU   | MTL 5048 (elected engines)                    |
| • Liebherr  | Minimum LH-01-COL3A                           |
| • DEUTZ   | DQC CC-14                                     |
| • IRIZAR, S.COOP  | From September 2016                           |
| • MAN Diesel & Turbo  | For High Speed MAN175D                        |
| • Bundeswehr  | SY7025 acc.to TL 6850-0038/6                  |

**Miscibility**

Since the special advantages of **GLYSANTIN® G40®** will only be achieved when **GLYSANTIN® G40®** is used exclusively, mixing **GLYSANTIN® G40®** with other **GLYSANTIN®** coolants or products from other coolant manufacturers is not recommended.

**GLYSANTIN® G40®** should be blended with water in a concentration amongst 33 to 60% by volume prior to infilling. The usage of a 50/50 ratio for the mixture of water and **GLYSANTIN®** is generally advisable.

For preparation of the coolant it is recommended to use distilled or deionized water. In most cases tap water is also appropriate.

Analysis values of the water may not exceed the following threshold values:

Water hardness:	0 – 3.6 mmol/L
Chloride content:	max. 100 ppm
Sulfate content:	max. 100 ppm

**Chemical nature** Ethylene glycol with corrosion inhibitors

**Appearance** Clear liquid without solid contaminants

<b>Physical data</b>	Density at 20 °C	1.123 – 1.126 g/cm <sup>3</sup>	DIN 51 757	
	Viscosity at 20 °C	27 mm <sup>2</sup> /s	DIN 51 562	
	Boiling point	min 163 °C	ASTM D1120	
	Flash point	min 120 °C	DIN ISO 2592	
	pH at 25 °C, 30 vol %	8.2 – 8.6	ASTM D1287	
	Reserve alkalinity	8.0 – 11.0 mL	ASTM D1121	
	Water content	max 3.0 %	DIN 51 777	
	Refractive index	1.432 - 1.436	DIN 51 423	
	Ash content	max 2.0 %	ASTM D1119	
	<b>Stability</b>	Inhibitor stability (168 hrs)	No precipitation	VW TL 774-G
		Hard water stability (10 days)	No precipitation	VW PV 1526
	<b>Frost protection</b>	Freezing point		ASTM D1177
		60 vol% solution	Below -50 °C	
50 vol% solution		Below -37 °C		
40 vol% solution		Below -24 °C		
33 vol % solution		Below -18 °C		
20 vol% solution		Below -8 °C		
10 vol% solution		Below -3 °C		

<b>Foaming characteristics</b>	33 vol % solution	max 20 mL / 5 mL	VW TL 774-G	
	33 vol% solution	max 50 mL / 3 s	ASTM D1881	
<b>Electrical conductivity</b>	At 25 °C, undiluted	1.2 mS/cm	ASTM D1125	
<b>Glassware corrosion test</b>	ASTM D1384			
	<b>Metal coupons</b>	<b>Typical weight loss (mg/coupon)</b>	<b>ASTM D3306 limit (mg/coupon)</b>	
	Copper	1	10 max	
	Solder	0	30 max	
	Brass	1	10 max	
	Steel	1	10 max	
	Cast Iron	4	10 max	
	Cast aluminum	-2	30 max	
	<b>Glassware corrosion test</b>	VW TL 774-G		
<b>Metal coupons</b>		<b>Typical weight loss (g/m<sup>2</sup>)</b>	<b>VW TL 774-G limit (g/m<sup>2</sup>)</b>	
Copper		0.1	3 max	
Solder		0.1	3 max	
Brass		-0.4	3 max	
Steel		-0.1	3 max	
Cast Iron		-0.1	3 max	
GAISi6Cu4		-0.5	2 max	
AlSi 12		-0.9	2 max	
AlMn		-0.4	2 max	
GAISi10Mg		-0.7	2 max	
<b>Simulated service corrosion test</b>		ASTM D2570		
		<b>Metal coupons</b>	<b>Typical weight loss (mg/coupon)</b>	<b>ASTM D3306 limit (mg/coupon)</b>
	Copper	2	20 max	
	Solder	24	60 max	
	Brass	2	20 max	
	Steel	1	20 max	
	Cast Iron	1	20 max	
	Aluminum	0	60 max	

<b>Heat transfer corrosion test</b>	ASTM D4340		
	Cast aluminum:	-0.1 mg / cm <sup>2</sup> / week	1.0 max
<b>Cavitation erosion corrosion test</b>	ASTM D2809		
	Water pump rating	10	min. 8
<b>Chip/filter paper method</b>	DIN 51 360		
	<b>Concentration</b>	<b>Typical rating</b>	<b>VW TL 774-G limit rating</b>
	20 vol% solution	4	4 max
	40 vol% solution	2	2 max
<b>Heat transfer corrosion test</b>	The above data represent average values at the time of going to press of this technical information. They cannot be regarded as specified data. Specified product data are issued as a separate product specification.		
<b>Quality control</b>	The above-listed data represents average values at the time of going to press this Data Sheet. They are intended as a guide to facilitate handling and cannot be regarded as specific data. Specified product data are issued as a separate product specification.		
<b>Storage stability</b>	GLYSANTIN® G40® 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 store in direct sunlight. Do not use galvanized containers for storage.		
<b>Color</b>	GLYSANTIN® G40® is available in pink only.		
<b>Safety</b>	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.		
<b>Note</b>	<p>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.</p> <p>It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.</p> <p>December 2023</p>		

---

**BASF SE**

Fuel and Lubricant Solutions  
67056 Ludwigshafen, Germany  
www.glystantin.de

® = registered trademark of BASF SE | ™ = registered trademark of BASF SE