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# GLYSANTIN® G05®

GLYSANTIN® G05® is an engine coolant concentrate based on ethylene glycol that needs to be diluted with water before use. GLYSANTIN® G05® contains a corrosion inhibitor package with nitrites, borates, and silicates. GLYSANTIN® G05® is free of amines and phosphates.

## Properties

GLYSANTIN® G05® protects engines against corrosion, overheating and frost. It gives a high degree of corrosion protection to engine components such as radiators, cylinder blocks/heads and water pumps. Due to its nitrite content this product is especially recommended for use in heavy-duty engines.

GLYSANTIN® G05® and GLYSANTIN® NA05® are chemically identical; GLYSANTIN® NA05® is the product name for the North American market.

GLYSANTIN® G05® fulfills the requirements of the following coolant standards:

- AS 2108-2004, ASTM D3306, ASTM D6210, BS 6580:2010, CUNA NC 956-16, AFNOR NFR 15-601, ÖNORM V 5123, SAE J1034, SANS 1251:2005 and China GB 29743-2013.

Additionally, a 50 vol% aqueous solution of GLYSANTIN® G05® -23 (green) complies with the NATO S-750 specification (A-A-52624A).

Furthermore, GLYSANTIN® G05® is officially approved according to the following OEM standards:

- |                        |               |
|------------------------|---------------|
| • Chrysler             | MS-9769       |
| • Deutz-Fahr           |               |
| • Dodge                | MS-9769       |
| • Ford (North America) | WSS-M97B51-A1 |
| • Huerlimann           |               |
| • JCB                  | STD 00088     |
| • Jeep                 | MS-9769       |
| • John-Deere           | JDM H24       |
| • Lamborghini-Tractors |               |
| • MTU                  | MTL 5048      |
| • Same                 |               |

<b>Miscibility</b>	<p>Since the special advantages of <b>GLYSANTIN® G05®</b> will only be achieved when <b>GLYSANTIN® G05®</b> is used exclusively, mixing <b>GLYSANTIN® G05®</b> with other <b>GLYSANTIN®</b> Coolants or products from other producers is not recommended.</p> <p><b>GLYSANTIN® G05®</b> should be blended with water in a concentration between 33 and 60% by volume prior to infilling. The use of a 50/50 ratio for the mixture of water and <b>GLYSANTIN®</b> is generally advisable. For preparation of the prediluted coolant it is recommended to use distilled or deionized water. In most cases tap water is also appropriate.</p> <p>Analysis values of the water may not exceed the following threshold values:</p> <table border="1"> <tr> <td>Water hardness:</td> <td>0 – 3.6 mmol/L</td> </tr> <tr> <td>Chloride content:</td> <td>max. 100 ppm</td> </tr> <tr> <td>Sulfate content:</td> <td>max. 100 ppm</td> </tr> </table>	Water hardness:	0 – 3.6 mmol/L	Chloride content:	max. 100 ppm	Sulfate content:	max. 100 ppm
Water hardness:	0 – 3.6 mmol/L						
Chloride content:	max. 100 ppm						
Sulfate content:	max. 100 ppm						
<b>Chemical nature</b>	Ethylene glycol with corrosion inhibitors						
<b>Appearance</b>	Clear liquid without solid contaminants						

<b>Physical data</b>	Density at 20 °C	1.131 – 1.133 g/cm <sup>3</sup>	DIN 51 757
	Viscosity at 20 °C	24 – 28 mm <sup>2</sup> /s	DIN 51 562
	Boiling point	min 163 °C	ASTM D1120
	Flash point	min 120 °C	DIN ISO 2592
	pH value	6.0 – 7.0	ASTM D1287
	Reserve alkalinity	15.0 – 19.0 mL	ASTM D1121
	Water content	max 3.0 %	DIN 51 777
	Refractive index	1.435 – 1.438	DIN 51 423
	Ash content	max 2.0 %	ASTM D1119
	<b>Frost protection</b>	Freezing point	
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 50 mL / 3 s	ASTM D1881
<b>Glassware corrosion test</b>	ASTM D1384		
	Metal coupons	Typical weight loss (mg/coupon)	ASTM D3306 limit (mg/coupon)
	Copper	0.0	10 max
	Solder	-0.3	30 max
	Brass	0.6	10 max
	Steel	-0.3	10 max
	Cast Iron	0.6	10 max
	Aluminum	-2.4	30 max
<b>Simulated service corrosion test</b>	ASTM D2570		
	Metal coupons	Typical weight loss (mg/coupon)	ASTM D3306 limit (mg/coupon)
	Copper	2.1	20 max
	Solder	1.9	60 max
	Brass	1.2	20 max
	Steel	-1.0	20 max
	Cast Iron	-1.1	20 max
	Aluminum	1.8	60 max
<b>Heat transfer corrosion Test</b>	ASTM D4340		ASTM D3306
	Metal coupon	Typical weight change (mg/cm <sup>2</sup> /week)	ASTM D 3306 limit (mg/cm <sup>2</sup> /week)
	Cast aluminum	-0.09	1.0 max
<b>Cavitation erosion corrosion test</b>	ASTM D2809		ASTM D3306
	Aluminum water pump rating	9	8 min

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<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 guideline to facilitate handling and cannot be regarded as specific data. Specified product data are issued as a separate product specification.
<b>Storage stability</b>	<b>GLYSANTIN® G05®</b> 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.
<b>Color</b>	<b>GLYSANTIN® G05®</b> is usually available in yellow. Different colors may be seen in special cases.
<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>February 2024</p>

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