A Brand of BASF – We create chemistry

GLYSANTIN® G48®

GLYSANTIN® G48® is an engine coolant concentrate based on ethylene glycol that needs to be diluted with water before use. GLYSANTIN® G48® contains a corrosion inhibitor package based on salts of organic acids and silicates (Hybrid Coolant). GLYSANTIN® G48® is free of nitrites, amines and phosphates.

Properties

GLYSANTIN® G48® 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® and GLYSANTIN® NA48® are chemically identical; GLYSANTIN® NA48® is the product name for the North American market.

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 according to the following OEM standards:

• BMW	• BMW GS 94000
• Bez. Reg. Arnsberg, ○ Dept. of Mining and Energy	• 84.12.22.63-2001-2
• Daimler / Mercedes-Benz	• MB-Approval 325.0
• Deutz	• DQC CA-14
• Jenbacher	• TA-Nr. 1000-0201
• Liebherr	• Minimum LH-00-COL3A
• 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
• Volvo Truck	• until MY 2005
• MWM	• TR 0199-99-2091-12 DE

Miscibility	Since the special advantages of GLYSANTIN® G48® will only be achieved when GLYSANTIN® G48® is used exclusively, mixing GLYSANTIN® G48® with other GLYSANTIN® coolants or products from other producers is not recommended. GLYSANTIN® G48® 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 – 2.7 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		
Physical data	Density at 20 °C	1.121 – 1.123 g/cm³	DIN 51 757
	Viscosity at 20 °C	24 – 28 mm2/s	DIN 51 562
	Boiling point	min 165 °C	ASTM D1120
	Flash point	None up to 120 °C	DIN ISO 2592
	pH value	7.1 – 7.3	ASTM D1287
	Reserve alkalinity	13 - 15 mL	ASTM D1121
	Water content	max 3.5 %	DIN 51 777
	Refractive index	1.432 – 1.434	DIN 51 423
	Ash content	max 1.5 %	ASTM D1119
Frost protection	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	
Foaming characteristics	33 vol % solution	max 50 mL / 3 s	ASTM D1881
Electrical conductivity	30 – 50 vol % solution	4 mS/cm (23°C)	ASTM D1125

Glassware corrosion test	ASTM D1384		
	Metal coupons	**Typical weight loss (mg/coupon)**	**ASTM D3306 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
	Aluminum	-1.1	30 max
Simulated service corrosion test	ASTM D2570		
	Metal coupons	**Typical weight loss (mg/coupon)**	**ASTM D3306 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
	Aluminum	-1.2	60 max
Heat transfer corrosion test	ASTM D4340		ASTM D3306
	Cast aluminum	-0.07 mg / cm^2 / week	1.0 max
Cavitation erosion corrosion test	ASTM D2809		ASTM D3306
	Aluminum water pump rating	9	8 min
Quality control	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.		
Storage stability	GLYSANTIN® G48® has a shelf life of at least 3 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® is usually available in blue-green. Different colors may be seen in special cases.		

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. April 2024

BASF SE
Fuel and Lubricant Solutions
67056 Ludwigshafen, Germany
www.glysantin.de