## The route to an engine coolant approval



### Physical properties

Comprehensive testing of physical properties of the coolant, such as density, boiling point, freezing point and color.



#### Elastomer compatibility

Extensive testing of the elastomer properties such as hardness, tear strength, elongation and volume. Both, before and after storage in the engine coolant under controlled conditions.



### Engine testing

Static engine testing under computer-controlled conditions.



#### Chemical properties

Assessment of the chemical properties and the composition of the coolant with respect to the potential ingredients such as silicate, phosphate, and other inhibitors.



#### Corrosion protection

Thousands of hours of laboratory testing, measuring the corrosion protection of various metals



#### Fleet testing

Dynamic engine testing in vehicles, both, on the road, in real world conditions, and on test tracks, under simulated conditions.



# GLYSANTIN®: The 3-fold premium protection for the cooling system

With 3-fold protection against corrosion, overheating and frost, GLYSANTIN® protects the long-term functional reliability of cooling systems.
GLYSANTIN® – the original – is ideally suited for all engines and vehicle types.



"For any further questions, please contact the GLYSANTIN" Team:" glysantin@basf.com www.glysantin.com



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## "Broad protection with GLYSANTIN<sup>®</sup>!"







## **GLYSANTIN**<sup>®</sup> – Dependable protection

3-fold protection against corrosion, overheating and frost

## GLYSANTIN® protects the cooling system

Premium quality for lasting functional reliability

## GLYSANTIN® – Tips for use

Things you should know!

GLYSANTIN® means better protection, better quality, better performance. Trust the original – Made in Germany.



## ■ Protection against corrosion

GLYSANTIN° forms a very thin, but extremely resistant protective layer in the cooling system.

The result: perfect protection against corrosion

Also: protection for parts made from rubber and plastic, such as radiator hoses, expansion tanks and header tanks

## ■ Protection against overheating

GLYSANTIN® raises the boiling point of the coolant in the cooling system, ensuring perfect transfer of heat – even when the engine is working hard or the outside temperatures are high.

The result: the radiator does not "boil over" and the engine does not overheat.

Also: protection against dangerous deposits in the coolant ducts

#### ■ Protection against frost

GLYSANTIN® prevents the coolant from freezing.

The result: no damage to engine components, gaskets and cooling system when outside temperatures are low

## Note! Without the appropriate GLYSANTIN® your cooling system is unprotected!

Damage resulting from an inappropriate or out-of-date coolant! The right GLYSANTIN® product can prevent this.



lime scale in the radiator



radiator corrosion



casing covered in lime scale



rust in the radiator

## The correct coolant for you engine is the coolant that has been approved by the vehicle manufacturer.

Incorrect use of engine coolant causes damage to the cooling system!

- When carrying out repairs, always replace the coolant completely, flush and clean the cooling system first.
- Never mix coolants based on different technologies.
- In the case of vehicles that are more than 6 years old, it is advisable to replace the coolant completely every 3 to 4 years.
- Always follow the vehicle manufacturer's instuctions!

# ENGINE COOLANT CONCENTRATES: GLYSANTIN®

The correct way to use engine coolant concentrates:

- Never use engine coolant concentrates in an undiluted form!
- Use suitable quality water!
- Always use the correct mixing ratio with water!

| Frost-proof to | Parts GLYSANTIN® | Parts water |
|----------------|------------------|-------------|
| -20°C          | 1                | 2           |
| -27 °C         | 1                | 1,5         |
| -38 °C         | 1                | 1           |
|                |                  |             |

# READY MIX ENGINE COOLANTS: GLYSANTIN® READY MIX

The correct way to use Ready Mixed engine coolant and therefore protection to -38°C:

- Ready Mixed engine coolant are pre-diluted
   1:1 with water.
- Ready Mixed engine coolants can be used directly, do not further dilute with water.

Never use engine coolant concentrate in an undiluted form!

## GLYSANTIN® - Made in Germany since 1929

BASF first patented GLYSANTIN° in 1929, and the brand has been very popular with motorists ever since. This engine coolant has the most OEM approvals from the large motor manufacturers. BASF works in cooperation with leading automobile suppliers to ensure that GLYSANTIN° products always fulfill the latest demands.

"Prevention is better than expensive repairs! GLYSANTIN® protects the entire cooling system throughout the year."



Further tips and information about protecting your cooling system can be found at www.glysantin.com

