

# PARAGEL LL

READY-TO-USE COOLANT (G12+)FOR  
ALL AUTOMOBILE COOLING SYSTEMS

263507/02.17

Rev.2

## DESCRIPTION

PARAGEL is an organic antifreeze based on mono ethylene glycol (MEG) of exceptional quality and G12+.

PARAGEL is used in all closed and open cooling systems in cars, trucks, machinery for agriculture and civil works.

Practice tests on a very large number of vehicles show full protection for at least 650,000 km (8000 h) on heavy duty engines and for 250,000 km for engines of cars and vans.

It is recommended to change the coolant every 5-year.

## ADVANTAGES

- Excellent thermal conductivity for a maximum cooling of the engine.
- Contains special inhibitors for a maximum protection of aluminum alloys.
- Real long life antifreeze thanks to the strong reserve alkalinity.
- Compatible with the radiator hoses, the elastomers and plastic parts.
- Miscible with refrigerants of the same origin (MEG).

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## PERFORMANCE

| Constructor              | Specification                 |
|--------------------------|-------------------------------|
| -                        | ASTM D 4985                   |
| -                        | ASTM D 6210                   |
| BRITISCH LEYLAND         | LTS 22 AF 10                  |
| CATERPILLAR              | EC-1                          |
| CHRYSLER                 | MS 9176                       |
| MERCEDES                 | 325.3 / 326.3                 |
| DAF                      | 74002                         |
| DEUTZ                    | MWM 0199-2091                 |
| FORD                     | WSS-M97B44-D / ESE-M97B44-A   |
| GENERAL MOTORS/US        | GM 6277M                      |
| MAN                      | 248 & 324 SNF / B&W D 36 5600 |
| MACK                     | 014GS17004                    |
| MTU                      | MTU 5048                      |
| RENAULT                  | 41-01-001                     |
| VW / AUDI / SEAT / SKODA | TL 774 D/F (G12+)             |
| PSA                      | B715110                       |
| VOLVO                    | (Reg. No. 260) VCS            |
| JOHN DEERE               | H24B1 & C1                    |
| OPEL-GM                  | QL 130100                     |
| WARTSILA                 | 32-9011                       |
| ULSTEIN BERGEN           | 2.13.01                       |
| SCANIA                   | TB 1451                       |
| CUMMINS                  | 85T8-2                        |
| SAAB                     | GM6277M                       |
| JAGUAR                   | WSS-M97B44-D                  |
| JAGUAR                   | CMR-8229                      |
| LANDROVER                | WSS-M97B44-D                  |
| WAUKESHA                 | WAUKESHA                      |

## HYGIENE, SECURITY & ENVIRONMENT

Please consult also the Safety Data Sheet about how to manipulate and to stock the product as well as to learn about the first aid measurements in case of accident.

Elimination after use must be made in conformity with the local rules in force about used oils disposal. When needed, Safety Data Sheet can be obtained upon request.

Conservation of the product: 3 year(s) in closed container and sheltered.

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## PROPERTIES

| PROPERTIES   | METHODS     | MEAN VALUES            |
|--|-------------|------------------------|
| Density at 20°C                                    | ASTM D 1122 | 1113 kg/m <sup>3</sup> |
| Boiling point                                      | ASTM D 1121 | 172°C                  |
| Monoethyleneglycol                                 | -           | 93 %                   |
| Inhibitors   | -           | 5 %                    |
| pH at 50% in water                                 | ASTM D 1287 | 8,5                    |
| Watercontent                                       | ASTM D 1123 | < 4 % w/w              |
| Ash content  | ASTM D 1119 | 1,1 %                  |
| Reserve Alkalinity (pH 5,0)                        | ASTM D 1121 | 4,8                    |
| Foaming tendency at 5°C (50%)<br>→ foam stability  | ASTM D 1881 | 50 ml<br>5 sec.        |
| Foaming tendency at 88°C (50%)<br>→ foam stability | ASTM D 1881 | 50 ml<br>5 sec.        |
| Compatibility with hard water                      | VW PV 1426  | No precipitation       |
| Staining on non-ferro metals                       | GME 60 255  | None                   |
| Staining characteristics                           | ASTM D 1882 | None                   |
| Nitrites, amines, phosphates                       | -           | None                   |
| Borates, silicates                                 | -           | None                   |
| Colour   | -           | orange                 |
| Shelf life (20°C)                                  | -           | 3 years                |
|  |             |                        |

*Average values are given for information only.*

### Testresults of the corrosion protection following ASTM D 1384

| Metals    | Average loss in mg / test tube |
|-----------|--------------------------------|
| Brass     | 1,6                            |
| Copper    | 1,9                            |
| Soldering | 0,1                            |
| Steel     | - 0,5                          |
| Cast iron | - 1,4                          |
| Aluminium | 4,6                            |
| Al Mn     | 2,9                            |