



Shell Rotella *ELC HD Concentrate*

Premium Extended Life Coolant/Antifreeze

Shell Rotella ELC HD Extended Life Coolant/ Antifreeze is an ethylene glycol based coolant for heavy duty diesel, gasoline and natural gas powered engines. Shell Rotella ELC HD is formulated with organic coolant additives and nitrite & molybdate as secondary inhibitors. This product requires no traditional ELC Extender or supplemental coolant additive (SCA) additions and contains no silicate, borate, nitrate or phosphate. Shell Rotella ELC HD Extended Life Coolant meets all the requirements of ASTM D3306, D6210, Cummins CES 14603, Cummins CES 14439 and CAT EC-1.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- No regular Supplemental Coolant Additives (SCA's) required
- Improved water pump seal life due to low dissolved solid levels
- Excellent pitting protection for wet sleeve cylinder liners
- Excellent, long-term corrosion protection of all cooling system metals including aluminum, brass, cast iron, steel, solder and copper
- Excellent heat transfer
- Reduced hard water scale
- Reduced overall coolant and cooling component maintenance
- No silicate dropout or gel formation during use or storage
- Compatible with conventional coolants. Suitable for use with extended life coolant brands like Caterpillar Extended Life Coolant, Detroit Diesel POWERCOOL® PLUS and Fleetrite® ELC. Can be used for top-up of cooling systems containing conventional coolants. When Shell Rotella ELC HD is used as top-up for conventional coolants, SCAs must still be added.
- Dilution/mixing with non-equivalent coolants will reduce or eliminate extended life properties. **DO NOT DILUTE THIS PRODUCT BY MORE THAN 15% WITH CONVENTIONAL COOLANTS.** Please do NOT use any concentrate coolant without proper water dilution (50% water dilution will give a freeze protection down to -37°C).

Main Applications

- Shell Rotella ELC HD Extended Life Coolant/Antifreeze has been proven to provide complete protection of cooling system components. Its special 2EHA free formulation provides outstanding rubber/seal protection, which reduces the likelihood of coolant leakage or intrusion into combustion chambers.
- Shell Rotella ELC HD, while providing complete cooling system component protection, also helps reduce water pump failures, hard water scale deposits, "green goo" (silicate gel) and improves heat transfer. Tests with Shell Rotella ELC HD show that heat transfer is better with Shell Rotella ELC HD than with conventional heavy duty, silicate-containing coolants.
- Maintenance is simple with Shell Rotella ELC HD. To use this product just follow your OEM's instructions on how to drain, flush and refill your cooling system. Recommend to top up only with Rotella ELC HD or similar/equivalent product. Please note that dilution of Shell Rotella ELC HD by more than 15% with nonequivalent coolants is not recommended. Over-dilution will require initiating SCA use or draining and refilling the cooling system with Shell Rotella ELC HD.

Specifications, Approvals & Recommendations

- ASTM D3306, D4985, D6210 (Meets)
- Cummins CES 14603, 14439 (Approval)
- CAT EC-1 (Meets full requirements)
- Phosphate free requirement of European OEMs
- Silicate free requirement of Japanese OEMs

For a full listing of equipment approvals and

recommendations, please consult your local Shell Technical Helpdesk.

Typical Physical Characteristics

| Properties | | Method | Shell Rotella ELC HD Concentrate |
|--------------------|--------------------|------------|----------------------------------|
| Colour | | Visual | red |
| Specific Gravity | 15.6°C (60°F) | ASTM D1122 | 1.12 |
| Freezing Point | 50 %vol °C maximum | ASTM D1177 | -37 |
| Reserve Alkalinity | mL 0.1N HCl | ASTM D1121 | 8 |
| pH | 50% in water | ASTM D1287 | 8.9 |

These characteristics are typical of current production.

Health, Safety & Environment

- **Health and Safety**

This product is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used coolant. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from <https://www.epc.shell.com>

- **Protect the Environment**

Take used coolant to an authorised collection point. Do not discharge into drains, soil or water.