



Shell Dexcool *ELC AF/C*

Extended Life Antifreeze

Shell DEX-COOL® Extended Life Antifreeze/Coolant is a single-phase, ethylene glycol based, extended life, universal automotive engine coolant based on a unique extended life carboxylate inhibitor system. Shell DEX-COOL® is suitable for a five year or 150,000 mile service life in automotive applications. In heavy-duty applications not requiring nitrite Shell DEX-COOL® is suitable for a service life of 400,000 miles or 8,000 hours. Shell DEX-COOL® Prediluted 50/50 is a 50/50 volume mixture of Shell DEX-COOL® with deionized water.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Meets GM6277M--General Motor's new Extended Life Coolant specification (DEX-COOL®)
- Five year or 150,000 miles service interval
- Provides effective, long term corrosion protection for aluminum, brass, cast iron, steel, solder and copper
- Superior high temperature aluminum protection
- Improved water pump life
- Maintains good as new heat transfer due to no silicate containing formula
- Reduces silicate gel formation in use or in storage
- Storage stable for at least eight years
- 100% biodegradable in its pure unused form
- Compatible with conventional antifreeze. Further dilution of a 50/50 mixture with more than 10% conventional coolant or water will reduce cooling system protection
- All product bittered to help render product unpalatable

Main Applications

- Extended life universal automotive gasoline or diesel engine antifreeze / coolant

- Extended life universal heavy-duty diesel antifreeze/coolant for systems not requiring nitrite
- Extended life antifreeze/coolant meeting Japanese silicate free requirements
- Extended life antifreeze/coolant meeting European phosphate free requirements

Specifications, Approvals & Recommendations

- GM DEX-COOL® approval
- General Motors GM6277M
- General Motors GM1825M
- Concentrate meets ASTM D3306 incl. D4340 and ASTM D4985
- Pre-dilute meets ASTM D4656
- Federal Specification A-A-870A
- General Motors GM1899M (Performance corresponding to GM6038M)
- Chrysler MS-9769 (meets performance requirements)
- Ford ESE-M97B44-D
- Volkswagen/Audi G-12

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

Typical Physical Characteristics

Properties	Method	Shell Dexcool ELC AF/C
Code No		94040
Appearance		Orange
Specific Gravity 60 / 60°F		1.130
Freezing Point 50 vol % q.s. Aqueous solution	ASTM D1177	-34
Freeze point, as purchased °F		-

Properties	Method	Shell Dexcool ELC AF/C
pH 1:2 dilution with water	ASTM D1287	8.3
Reserve Alkalinity, as received	ASTM D1121	6.0
Silicate (as Anhydrous Alkali Metasilicate) %		None

These characteristics are typical of current production. While future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

Health and Safety

Shell DEX-COOL® Extended Life Antifreeze/Coolant 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.

Handling

Shell DEX-COOL® Extended Life Coolant has a shelf life of at least 8 years. Concentrate product should be mixed before use. Always dispose of used coolant in accordance with local, state and federal guidelines. These products are not to be used to protect the inside of potable water systems against freezing.

Avoid contact with skin. Use impervious gloves with used oil. 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 <http://www.epc.shell.com/>

Protect the Environment

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

Additional Information

For optimum year round protection against freezing, boiling and corrosion, a 50 percent Shell DEX-COOL® Extended Life Antifreeze/Coolant concentrate solution (1 part AF/1 part water) is recommended. For maximum protection against freezing in extremely cold areas, a 60 percent solution (3 parts AF/2 parts water) can be used. Concentrations greater than 67 percent or less than 40 percent are not recommended. Shell DEX-COOL® Extended Life Antifreeze/Coolant Pre-diluted 50/50 should be used as purchased. No further dilution is recommended. Dilution of a 50/50 mixture by more than 10% with conventional coolants or water will reduce corrosion and freeze point protection.

Recommended dilution for Shell DEX-COOL® Extended Life Antifreeze/Coolant concentrate

Boiling Protection, °F (C) (15 lb. pressure cap) 50% (1 part AF/1 part water)	265 (129.4)
Freezing Protection, °F (C) 40% (2 parts AF/3 parts water)	-12 (-24.4)
Freezing Protection, °F (C) 50% (1 part AF/1 part water)	-34 (-37.2)
Freezing Protection, °F (C) 60% (3 parts AF/2 parts water)	-61 (-51.7)

Advice

Advice on applications not covered here may be obtained from your Shell representative.

