



ShellZone DEX-COOL ELC AF/C

Extended Life Antifreeze

ShellZone 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. ShellZone DEX-COOL® is suitable for a five year or 150,000 mile service life in automotive applications. In heavy-duty applications not requiring nitrite ShellZone DEX-COOL® is suitable for a service life of 600,000 miles or 12,000 hours.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Meets GMW3420--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

- 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
- GMW3420 (GM 6277M)
- Ford WSS-M97B44-D
- Chrysler MS 12106 (meets performance requirements)
- Volkswagen/Audi G-12 (meets requirements)
- ASTM D3306, D4985, D6210 (Meets)
- Federal Specification A-A-870A

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

Main Applications

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

Typical Physical Characteristics

Properties	Method	ShellZone DEX-COOL ELC AF/C
Appearance		Orange
Specific Gravity 60 / 60°F		1.130
Freezing Point 50 vol % q.s. Aqueous solution °F	ASTM D1177	-34
pH (50% vol)	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. Whilst future production will conform to Shell's specification,

variations in these characteristics may occur.

Health, Safety & Environment

• Health and Safety

ShellZone 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

ShellZone 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 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.

Additional Information

- For optimum year round protection against freezing, boiling and corrosion, a 50 percent ShellZone 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.

• Recommended dilution for ShellZone 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.