

> FLA COE
> FLB COE
> FLD Conventional

> Business Class
> FLC 112 Conventional
> Century Class Conventional

> Argosy COE
> Cargo

**Freightliner
Service Bulletin**

General Information

The purpose of this service bulletin is to explain the correct use and maintenance of extended-life coolants (ELC), and to identify Freightliner-approved coolant types.

See the enclosed color reference card to identify Freightliner-approved coolants by color.

NOTE: Additional color reference cards (Form Number TSS408) can be ordered through Freightliner Publications by using the "Freightliner Manuals Order Form" located in the TAO electronic mail bulletin board under "PUB-FORMS."

The major difference between extended-life coolants and conventional heavy-duty coolants is the type of inhibitors used. Conventional heavy-duty coolants use inhibitors called SCAs (Supplemental Coolant Additives). Extended-life coolants (sometimes called long-life coolants) contain inhibitors that use Nitrited Organic Acid Technology (NOAT), also called Carboxylate Technology. These inhibitors deplete much more slowly than SCAs. This allows for a much longer interval before the inhibitors need to be replaced. As long as correct topping-off procedures are used, the inhibitors in extended-life coolants need to be replenished only once during the life of the coolant.

There are several different brand names of extended-life coolants. All are strawberry-red in color and all are compatible with each other. See [Table 1](#).

NOTE: A red coolant is not necessarily an extended-life coolant. Use only the brands shown in [Table 1](#).

CAUTION

Do not use automotive-type coolants in any heavy-duty cooling system. They do not contain adequate corrosion protection, and serious engine damage could result.

Compatible Pre-Mixed Extended-Life Coolants					
Supplier	Product Name	Part Number	Qty.	Color	Use
Texaco	Extended-Life Coolant (ELC), Pre-Diluted 50/50	7998	*	Strawberry-red	Initial Fill and Top-Off
Caterpillar	Extended-Life Coolant (ELC) 50/50 Premix	102844	1 gallon		
		1292151	5 gallons		
		102845	55 gallons		
Detroit Diesel	Power Cool Plus® Pre-Blended 50/50	23519396	6 gallons		
		23519398	55 gallons		
Shell	Rotella ELC® Pre-Diluted 50/50 Extended-Life Coolant	94042	*		

* Specify quantity when ordering.

Table 1, Compatible Pre-Mixed Extended-Life Coolants

There are two ways to visually identify a system with an extended-life coolant:

- A label near the fill point on or near the surge tank.
- The color of the coolant (strawberry-red).

Maintenance of Extended-Life Coolants

With correct maintenance, extended-life coolants are designed to provide engine protection for 600,000 miles (965 000 km) or 12,000 off-road hours. An extender must be added at 300,000 miles (483 000 km), or 6,000 off-road hours. Ordinarily, extended-life coolants need very little additional maintenance. It is important, however, to periodically check the freeze point and visually check for contaminants. See [Table 2](#) for maintenance procedures.

Extended-Life Coolant Maintenance		
Procedure	Interval	Notes
Topping Off	As Needed	Use only a compatible pre-mix coolant. See Table 1 .
Testing Freeze Point	Every 6 to 12 months *	Use only a refractometer to test.
Visual Inspecting	Every 6 to 12 months *	Color should be strawberry-red, and free of contaminants.
Adding Extender	300,000 miles (483 000 km) or 6,000 off-road hours	Use a compatible extended-life coolant extender. See information under "Adding Extenders."

* Interval depends on topping-off frequencies.

Table 2, Extended-Life Coolant Maintenance

Topping Off the System

Top off the system as needed, using an approved pre-mix extended-life coolant. See [Table 1](#).

IMPORTANT: An approved extended-life coolant must be used to maintain the extended-life benefits in the system. Topping off with a conventional coolant will not damage the cooling system, but any benefits of an extended-life coolant will be lost. If accumulated top offs with conventional coolants reach 10 percent of the cooling system's capacity, either drain the system and refill it with an approved extended-life coolant or maintain the system as one with a conventional coolant.

Freeze Point Checking

Use only a refractometer to check the freeze point; a hydrometer is not accurate enough. To increase the freeze point, add an approved concentrate to achieve the desired ratio of antifreeze to water—usually either 50/50 or 60/40. See [Table 3](#) for compatible concentrates.

Compatible Extended-Life Coolant Concentrates					
Supplier	Product Name	Part Number	Qty	Color	Use
Texaco	Extended-Life Coolant (ELC) Concentrate	7997	*	Strawberry-red	Freeze Point Adjustment
Caterpillar	Extended-Life Coolant (ELC) Concentrate	119515	1 gallon		
		136707	55 gallons		
Detroit Diesel	Power Cool®	23519397	6 gallons		
		23519394	55 gallons		
Shell	Rotella® Extended-Life Coolant (ELC) Concentrate	94041	*		

* Specify quantity when ordering.

Table 3, Compatible Extended-Life Coolant Concentrates

Visual Inspecting

To check visually for contaminants, drain a coolant sample into a clear container. Check the color against a known good sample or use the color reference card, Form Number TSS408, enclosed with this service bulletin.

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Contamination can be caused by system failure, but more often it is from topping off with a conventional coolant (usually a different color). If contamination is suspected, either test the coolant yourself, using a special Texaco Field Contamination Kit, number 2868, or contact Texaco to send a coolant sample for testing under their TELESCAN program.

Contact your local Texaco distributor to order a test kit. To find your local distributor, call 1-800-782-7852, options 7,1,1.

For Texaco technical information, call 1-800-782-7852, option 3.

Adding Extenders

At 300,000 miles (483 000 km) or 6,000 off-road hours, add an extender to the coolant. This will give corrosion protection for an additional 300,000 miles (483 000 km) or 6,000 off-road hours. See [Table 4](#) for approved extenders.

Compatible Extended-Life Coolant Extenders				
Supplier	Product Name	Part Number	Qty.	Use
Texaco	Texaco Extended-Life Extender	7999	*	Extends Coolant Life to 600,000 miles (965 000 km) or 12,000 off-road hours
Caterpillar	Caterpillar ELC Extender	1195151	1 pint	
		1195152	1 quart	
Detroit Diesel	Power Cool Plus Extender	23519400	*	
Shell	Rotella ELC Extender	94043	*	

* Specify when ordering.

Table 4, Compatible Extended-Life Coolant Extenders

Warranty

This is an informational bulletin only; warranty does not apply.