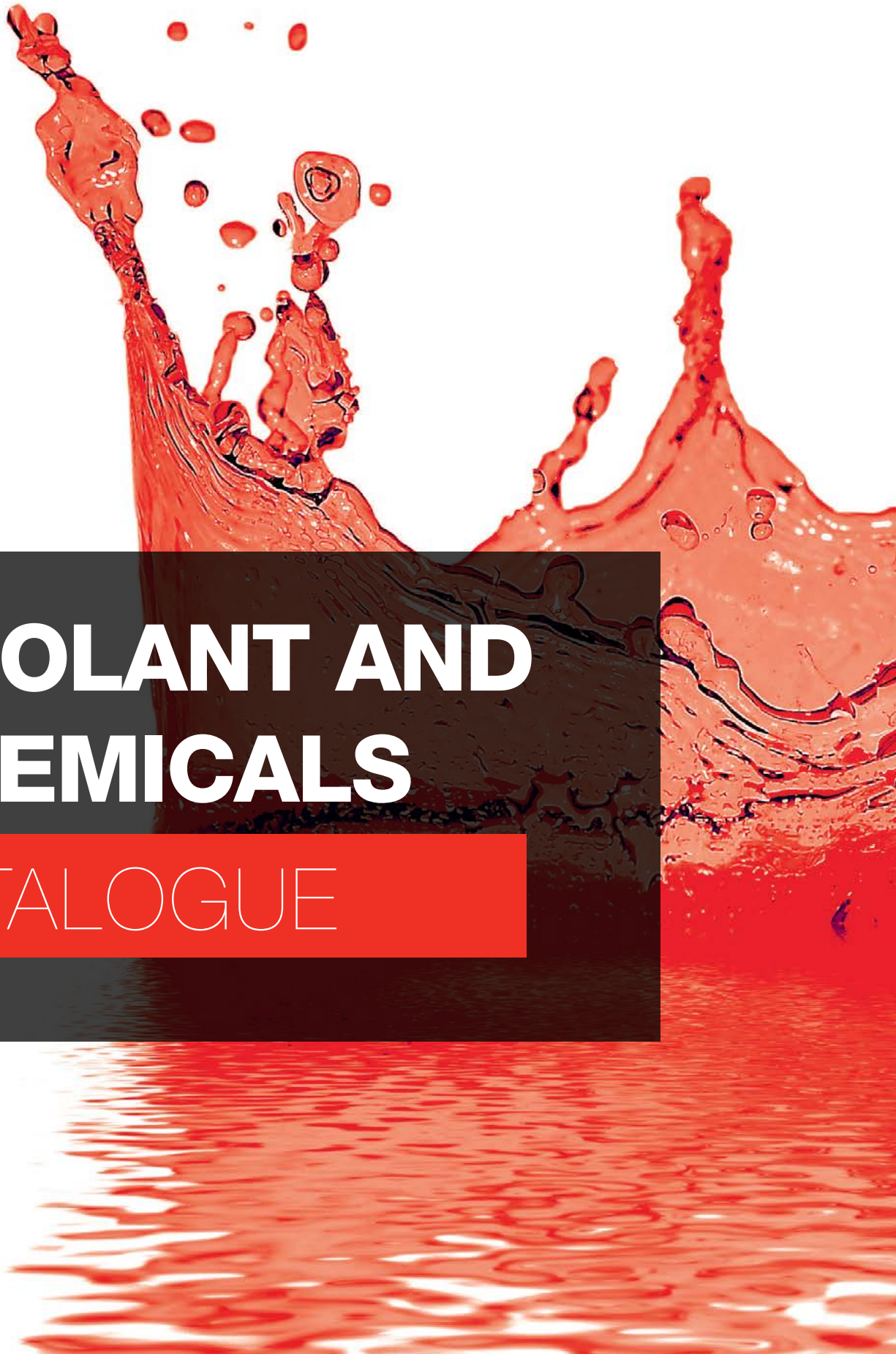


**Fleetguard<sup>®</sup>**



# COOLANT AND CHEMICALS

CATALOGUE



# CUMMINS FILTRATION WARRANTY COVERAGE BEYOND THE COMPETITION

Providing customers the best warranty coverage in the industry is our ongoing promise to be your supplier for life. Our non pro-rated warranty guarantees that we will always be there after the sale. If a Cummins Filtration product defect ever necessitates repair of the engine or components, the Cummins Filtration Warranty covers reimbursement of reasonable costs to repair or replace, whichever is less, the damaged engine or components.

We ensure that our Cummins Filtration Warranty goes beyond all other competitive warranties with the most dependable, premium coverage available anywhere in the world, including:

- Uncomplicated, simple Warranty statement
- Warranty in the language of choice
- Non pro-rated Warranty
- Industry-leading response time
- Global coverage for Fleetguard filtration products, chemicals and coolants
- 24-hour Customer Assistance





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# FLEETGUARD COOLING SYSTEM MAINTENANCE PRODUCTS

Estimates project up to **40% of total engine repair costs** are related to problems that originate in the cooling system. Repairs are costly and create unnecessary downtime that affects equipment operations and customer deadlines. Fleetguard cooling system products provide unmatched protection with maintenance programs to meet your needs and keep your engines running longer with less downtime.

## One Stop Shop

Our comprehensive line of cooling system products includes everything you need to ensure an easy, trouble-free cooling maintenance program:

- Fully formulated heavy duty antifreeze coolants
- Supplemental coolant additives (SCAs)
- Cooling system cleaners
- Coolant filters – chemical and non-chemical
- Field and laboratory testing

## Easy Maintenance

Fleetguard cooling system maintenance is as simple as 1, 2, 3, 4.

- 01** Restore your cooling system back to its optimum condition.
- 02** Fill your system with long life coolant that offers maximum engine protection and is safe for you and the environment.
- 03** Properly top up your system using the pre-mixed coolant, maintain additive levels at regular service intervals, and change filters.
- 04** Test with our simple dip and read test strips and maintain as needed.

Fleetguard coolants are suitable for use in all gasoline, diesel, and natural gas engines.

## Unmatched Protection

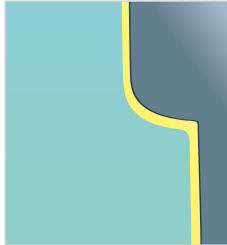
In addition to providing superior freeze and boil over protection, Fleetguard products protect your engine from the most damaging cooling system problems, including:

- Corrosion
- Liner pitting/cavitation
- Scale & deposits
- Acidification

Fleetguard coolants are manufactured to the highest standards and meet the performance specifications of most major OEMs. You can depend on Fleetguard cooling system products to provide unmatched protection to your engine.

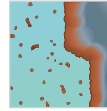
## Corrosion

### With Fleetguard Protection:

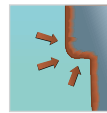


Protective layer created by Fleetguard fully formulated coolant prevents corrosion and erosion.

### Without Fleetguard Protection:



Corrosion affects all metal parts, especially aluminium.

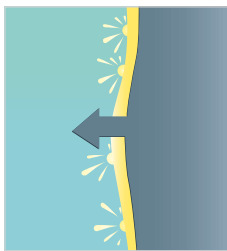


Corrosion products and tiny metal particles begin to circulate in the cooling system, causing erosion damage to mechanical parts.

## Liner Pitting/Cavitation

When the liner vibrates, bubbles collapse under the enormous pressure and take small chunks out of the liner.

### With Fleetguard Protection:

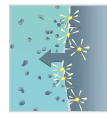


Fleetguard fully formulated coolant can prevent the fatal effect on your engine by creating a protective layer on the liner wall: implosions now take place on this layer and spare the liner surface.

### Without Fleetguard Protection:



Piston-slap causes liner vibration which creates a vacuum and formation of tiny vapour bubbles at the liner surface.

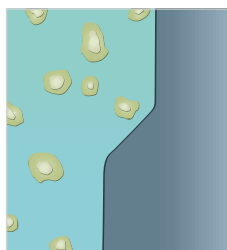


As the liner slams back in the coolant the tiny bubbles implode with high pressure. This process repeats many times per second resulting in small chunks being kicked out of the liner.

## Scale & Deposits

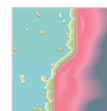
Scale has detrimental effects to the hot surfaces of your engine cooling system (the liners and the cylinder heads). The consequences are worn piston rings, higher oil consumption and, in the worst cases, total engine failure.

### With Fleetguard Protection:



Fleetguard fully formulated coolants contain a proprietary polymer system that 'wraps up' the scale particles so that they can't attach themselves to the hot metal surfaces.

### Without Fleetguard Protection:



As the engine functions, the heat causes the formation of scale on the hot surfaces.



The scale layer acts as an insulator, preventing the coolant from absorbing the heat of the engine.

## Acidification

Over time, coolants acidify due to the degradation of antifreeze and combustion gases entering the cooling system, which can damage cooling system components. Fleetguard fully formulated coolants buffer the coolant to prevent and neutralise the formation of acids.

# 01

## Restore Your Cooling System to its Optimum Condition

There are two types of Fleetguard cleaners, designed to keep your cooling system in top condition. Both Restore and Restore Plus remove contaminants without harming metal surfaces, gaskets, hoses or plastic parts, when used in accordance with product instructions. They are also approved by Cummins as the preferred product for cleaning oil contaminated cooling systems under warranty maintenance. Only use if there are visible signs of contamination such as rust, solder bloom, oil, etc.

### COOLING SYSTEM CLEANERS



#### Restore®

- Alkaline-based cleaner
- Removes silicate gel, oil, grease & solder bloom
- Most effective cooling system cleaner for oil/fuel contamination on the market
- More effective than automotive distributor detergent powder
- Safe for use in aluminium radiators and heaters

Restore	Part #
3.78L Bottle (1 Gal.)	CC2610
18.9L Drum (5 Gal.)	CC2611



#### Restore Plus®

- Mild acid based chelating cleaner
- Safely removes rust, corrosion, scale & solder bloom without disassembling your cooling system
- Most effective cooling system cleaner for rust/scale contamination on the market
- Safe for use with aluminium radiators and heaters, plastic parts and gaskets
- Removes heavy rust and scale deposits

Restore Plus	Part #
3.78L Bottle (1 Gal.)	CC2638
208L Drum (55 Gal.)	CC2637

Problem	Restore	Restore Plus
Silicate gel	<b>Excellent</b>	Poor
Rust	Poor	<b>Excellent</b>
Scale	Fair	<b>Excellent</b>
Oil & fuel	<b>Excellent</b>	Good
Solder bloom	<b>Good</b>	<b>Good</b>

# 02

## Select Fully Formulated Coolant

Fleetguard's heavy duty coolant products use propylene glycol which is a non-poisonous, biodegradable, environmentally friendly and safer alternative to ethylene glycol based coolants. Fleetguard offer two technologies to cover your needs: PGPlus (hybrid technology, dual buffer with nitrite/molybdate cavitation protection) and PG Platinum (extended life OAT technology that is nitrite free and has minimal maintenance requirements).

### COOLANT



#### PG Platinum®

- Organic lifetime propylene glycol premixed coolant with 6 years, 1.5 million kms, 36,000 hours service life
- For use in all heavy duty, light duty and gas engines
- Protects against liner pitting and provides solid corrosion protection for aluminum, cast iron, copper, brass, and solder
- No SCA or extenders needed for life of the coolant
- Easy maintenance with extended service non-chemical filters
- Contains proprietary scale inhibitors
- Compatible with gaskets, elastomers, non-metallics including silicon seals/hoses
- OEM approved formulation free of nitrite, amine, phosphate, borate, silicate, and 2-ethylhexonic acid
- Approved by Cummins to CES14603, CES14439 (for heavy duty) & CES 14636 (for light duty)
- Meets ASTM D3306, ASTM D6210 and TMC RP 330

PG Platinum Premix	
4L Bottle (1 Gal.)	CC36082
10L Drum (2.6 Gal.)	CC36083
20L Drum (5.3 Gal.)	CC36084
208L Drum (55 Gal.)	CC36085
1000L Pallecon (263 Gal.)	CC36086
Bulk (20,000L)	CC36087



#### PGPlus®

- Fully formulated hybrid propylene glycol based premixed coolant with dual borate, phosphate buffer and low silicate formulation for use in all heavy duty diesel and gas engines
- Life-of-the-engine coolant, with 5 years, 1 million kms, 20,000 hours service life
- Protects against liner pitting and provides solid corrosion protection for aluminum, cast iron, copper, brass, and solder
- Contains proprietary scale inhibitors
- Compatible with Fleetguard DCA4 liquid, or DCA4+ chemical filters
- Approved by Cummins to CES14603 and CES14439 (for heavy duty)
- Meets ASTM D3306, ASTM D6210, TMC RP 330

	PGPlus Premix	PGPlus Concentrate
4L Bottle (1 Gal.)	CC2870	CC2657
10L Drum (2.6 Gal.)	CC2871	
20L Drum (5.3 Gal.)	CC2869	CC2658
208L Drum (55 Gal.)	CC2868	CC2659
1000L Pallecon (263 Gal.)	CC2867	CC2832
Bulk (20,000L)	CC2866	

# 03

## Maintain Cooling System

Coolant filtration is proven to reduce wear and to maintain cooling system components. Additionally, water filters can provide a convenient and reliable method of delivering supplemental coolant additives into the cooling system to improve performance and extend coolant service life.

Fleetguard water filters are available as: Extended Service (ES) interval and Standard Service (SS) interval filters.

### COOLANT FILTRATION FOR PG PLATINUM



#### Extended Service (ES) Filters for PG Platinum

- Easy maintenance every 12 months, 250,000kms or 4000 hours
- Improved mechanical design for increased durability, corrosion resistance and service life
- ES filters provide service intervals up to 10 times longer than standard service filters
- Stratapore multilayer media offers superior durability, efficiency and capacity

Part #	Service	Thread Size
WF2122 *	Non-chemical	11/16-16 UN-2B
WF2123 *	Non-chemical – increased media	11/16-16 UN-2B
WF2127	Non-chemical – Cummins Signature, ISXe5/X15	M36 X 2-6G INT
WF2129	Non-chemical – Volvo	M16 X 1.5-6H INT
WF2130	Non-chemical – Volvo with increased media	M16 X 1.5-6H INT
WF2134	Non-chemical – Mack	3/4-20 UNEF-2B



#### Standard Service (SS) Filters for PG Platinum

- Standard service filters offer an option for servicing that relies on traditional filter change intervals
- They are typically changed at the same time oil filters are changed
- Standard service, non-chemical filters offer good protection against coolant system erosion and pump seal failure
- High quality cellulose media, which is 95% efficient at 60 microns

Part #	Service	Thread Size
WF2077 *	Non-chemical – Cummins, Caterpillar, Detroit & others	11/16-16 UN-2B
WF2078	Non-chemical – Volvo	3/4-20 UNEF-2B
WF2079	Non-chemical – Mack	1-16 UN-2B

\* Fits standard heads for Cummins, Caterpillar, Detroit, Komatsu and others.



Extended Service (ES) water filters are constructed with special filtration media (Stratapore) that allows them to perform for extended servicing intervals of 250,000kms, 4,000 hours, or 1 year before needing to be changed. ES water filters for PGPlus are available as a slow release DCA4+ chemical filter that replenishes additives as they are needed during service. This controlled release helps to prevent overdosing issues which can occur if cooling systems are over-serviced with standard service chemical filters or DCA4 liquid. ES water filters are also available as a “non-chemical” water filter for situations where extended service coolant filtration is required and where there is no need to add chemical additives to the coolant product.

Standard Service (SS) water filters are traditional filters that are intended to match more frequent maintenance practices and should be replaced every 20,000 kms or 250 hrs (approx. every oil change). Standard Service water filters are available as a “non-chemical” filter or in a range of immediate release DCA4+ chemical filters (2 – 23 units SCA).

For a complete listing of water filters refer to the website literature: Fleetguard Products & Parts Technical Information Catalogue: Water Filters. Filters come in a range of dimensions, media, thread sizes, chemical, non-chemical, extended service (ES) and standard service (SS) forms.

## COOLANT FILTRATION FOR PGPLUS



### Extended Service (ES) Filters for PGPlus

- Easy maintenance every 12 months, 250,000 kms, or 4000 hours
- Improved mechanical design for increased durability, corrosion resistance and service life
- Patented slow-release mechanism replenishes chemical additives depleted by use
- ES filters provide service intervals up to 10 times longer than standard service filters
- Stratapore multilayer media offers superior durability, efficiency and capacity

Part #	Slow Release Coolant Additive	Service	Thread Size
WF2121 *	15 units DCA4+	Slow release ES chemical	11/16-16 UN-2B
WF2124	15 units DCA4+	Slow release ES chemical – Mack	3/4-20 UNEF-2B
WF2126	15 units DCA4+	Slow release ES chemical – Cummins Signature, ISXe5/X15	M36 X 2-6G INT
WF2128	15 units DCA4+	Slow release ES chemical – Volvo	M16 X 1.5-6H INT
WF2122 *		Non-chemical	11/16-16 UN-2B
WF2123 *		Non-chemical – increased media	11/16-16 UN-2B
WF2127		Non-chemical – Cummins Signature	M36 X 2-6G INT
WF2129		Non-chemical – Volvo	M16 X 1.5-6H INT
WF2130		Non-chemical – Volvo with increased media	M16 X 1.5-6H INT
WF2134		Non-chemical – Mack	3/4-20 UNEF-2B



### Standard Service Filters for PGPlus

- Standard service filters offer an option for servicing that relies on traditional filter change intervals
- They are typically changed at the same time oil filters are changed
- Standard service, non-chemical filters offer good protection against coolant system erosion and pump seal failure
- High quality cellulose media, which is 95% efficient at 60 microns

Part #	Slow Release Coolant Additive	Service	Thread Size
WF2070	2 units DCA4+	SS - Chemical	11/16-16 UN- 2B
WF2071	4 units DCA4+	SS - Chemical	11/16-16 UN- 2B
WF2072	6 units DCA4+	SS - Chemical	11/16-16 UN- 2B
WF2073	8 units DCA4+	SS - Chemical	11/16-16 UN- 2B
WF2074	12 units DCA4+	SS - Chemical	11/16-16 UN-2B
WF2075	15 units DCA4+	SS - Chemical	11/16-16 UN- 2B
WF2076	23 units DCA4+	SS - Chemical	11/16-16 UN- 2B
WF2077 *		Non-chemical – Cummins, Caterpillar, Detroit & others	11/16-16 UN-2B
WF2078		Non-chemical – Mack	3/4-20 UNEF-2B
WF2079		Non-chemical – Mack	1-16 UN-2B

\* Fits standard heads for Cummins, Caterpillar, Detroit, Komatsu and others.

## LIQUID ADDITIVE FOR PGPLUS



### DCA4

- A Supplemental Coolant Additive (SCA) is a liquid alternative to ES chemical filters
- To extend coolant protection life, add after one year or 250,000kms or 4,000 hours to boost PGPlus coolant for another service interval. Service amount is dependent on test results.

Part #	SCA Units	Pack Size (litres)
DCA 60L	5	0.473
DCA 65L	20	1.89
DCA 75L	200	18.9
DCA 80L	2200	208

## PGPLUS SERVICING

PGPlus, as new, contains ~0.7 SCA units per litre of system capacity and a propylene glycol concentration of ~50%. Test the coolant at normal service intervals or when a major coolant loss occurs or is suspected (min. twice a year for ES systems and each oil change for SS systems) and always check glycol concentration and SCA levels (nitrite/molybdate). This can be determined quickly with Fleetguard 3-Way Heavy Duty coolant test strips (CC2602M or CC2602AM). Adjust if necessary with DCA4 liquid.

Top up for lost coolant with PGPlus only. DO NOT ADD WATER as this will dilute the chemical balance.

### Extended Service (ES) Interval Systems

Applies to servicing the cooling system with ES water filters and/or DCA4 liquid.

Fill the cooling system with fully formulated PGPlus.

Each 250,000 kms , 4,000 hrs or 1 year change the ES Slow Release DCA4+ filter on applications up to 80 litre systems. For systems over 80 litres, or if there is no on-board filtration, add DCA4 liquid as per the Treatment Instructions below, and change non-chemical ES filter if applicable.

### Standard Service (SS) Interval Water Filters

Due to the materials of construction, Standard Service water filters should be changed every 20,000 kms, 250 hours or 1 year (approx. every oil change). Test the coolant's SCA levels using Fleetguard 3-Way Heavy Duty coolant test strips and based on the SCA level (SCA units per litre) and the cooling system capacity, select the appropriate size Standard Service water filter (0 units – 23 units immediate release DCA4+).

## Treatment Instructions using Fleetguard's 3-Way™ Heavy Duty Coolant Test Strips

Identifies the amount of DCA4 required to achieve premium protection for your application.

The following simplified testing is recommended for in-service testing of SCA levels using Fleetguard 3-Way Heavy Duty coolant test strips. Calculation examples on the next page are based on a system capacity of 60 litres.

The ideal target level is 0.7 units per litre of SCA.

## Result: SCA level 0.8 units per litre or greater

### (TEST)

#### Extended Service (ES) Interval

- Do not add DCA4 to the system (fit a non-chemical water filter)

#### Standard Service (SS) Interval

- Do not add DCA4 to the system (fit a non-chemical water filter)

## Result: SCA level 0.3 – 0.7 units per litre

### (SERVICE)

#### Extended Service (ES) Interval

- Fit one slow release ES filter for every 80 litres of system capacity (annually),
- or, add DCA4 liquid at a rate of 1% of the system capacity (e.g. 60 litre x 1% = 0.6 litre DCA4 liquid)

#### Standard Service (SS) Interval

- Fit 0.1 unit DCA4+ WF per litre of system capacity each service (eg. For a 60 litre system fit (60 litres x 0.1 units) = 6 unit DCA4+ water filter)

## Result: SCA level below 0.3 units per litre

### (PRE-CHARGE)

#### Extended Service (ES) Interval

- Fit one slow release ES filter for every 80 litres of system capacity (annually),
- or, add liquid DCA4 at a rate of 4% of the system capacity (e.g. 60 litre x 4% = 2.4 litres DCA4 liquid)

#### Standard Service (SS) Interval

- Fit 0.4 units DCA4+ WF per litre of system capacity each service (eg For a 60 litre system add (60 litres x 0.4 units) = 24 units DCA4+ water filter (max. size is 23 units)

*If the system capacity is greater than 80 litres or requires a water filter greater than 23 units then use DCA4 liquid and apply the Extended Service interval maintenance practices.*

*Note: With correct top up, protection should not be below 0.3 units per litre at each service interval and no more than 0.8 units per litre. The ideal level is 0.7.*

## FILTER KITS



### Filter Head Assemblies

Not all engines come equipped with coolant filters. Fleetguard provides head assemblies that can be installed to achieve the benefits of coolant filtration including administering additive for PGPlus and reducing erosion in coolant systems caused by sand and dirt. Additionally, coolant filters help to significantly reduce pump seal failure.

Part #*	Description	Style	Port Size	Thread Size
204163 S	Single water filter spin-on head	Aluminium	3/8" NPT	11/16-16 UN- 2B
215617 S	Dual water filter spin-on heads	Aluminium	1/2" NPT	11/16-16 UN- 2B
256535 S	Filter head mounting bracket (suits single & dual heads)	Steel	N/A	N/A
257715 S	Water filter head (204163S) and mounting bracket (256535S) assembly	Aluminium Head	3/8" NPT	11/16-16 UN- 2B
3904378 S	Severe duty water filter head*	Aluminium / Steel Insert	3/8" NPT	11/16-16 UN- 2B
WFK1	Std single head retro kit includes components: Std single head #204163S Bracket #256535S 2 x bronze valves 3/8" NPTF #179901 2 x bronze tail connectors 3/8" NPTF #179903		3/8" NPTF	11/16-16 UN- 2B

# 04

## Test Coolant Regularly

Every good cooling system maintenance program should include regular coolant testing to determine if the proper level of protection is present or if contaminants exist. A good coolant testing program eliminates guesswork and allows the cooling system to maintain peak performance.

### PG PLATINUM



#### 4-Way Coolant Test Kit

- Easy to use test strips measure molybdate, nitrite, freeze point, and pH
- Results in 45-75 seconds
- Designed specifically for use with PG Platinum

<b>50 Strip Test Kit</b>	CC36089
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### PGPLUS



#### 3-Way™ Heavy Duty Coolant Test Kit

- Measures protection against liner pitting, corrosion and coolant dilution
- Easy to use test strips measure freeze point and molybdate/nitrite
- Results in 45-75 seconds

<b>50 Strip Bottle</b>	CC2602M
<b>Four Strip Pack</b>	CC2602AM

### COOLANT CONDEMNATION TEST KIT



#### Quick-Chek™ 3-Way Test Strip (contamination check)

- Easy to use test strips measure levels of pH, sulfate and chloride for overall coolant quality
- Minimises unnecessary draining of coolant still within specifications
- Results in 30-70 seconds
- Test twice a year
- For use with PGPlus or other coolants not coloured red or orange

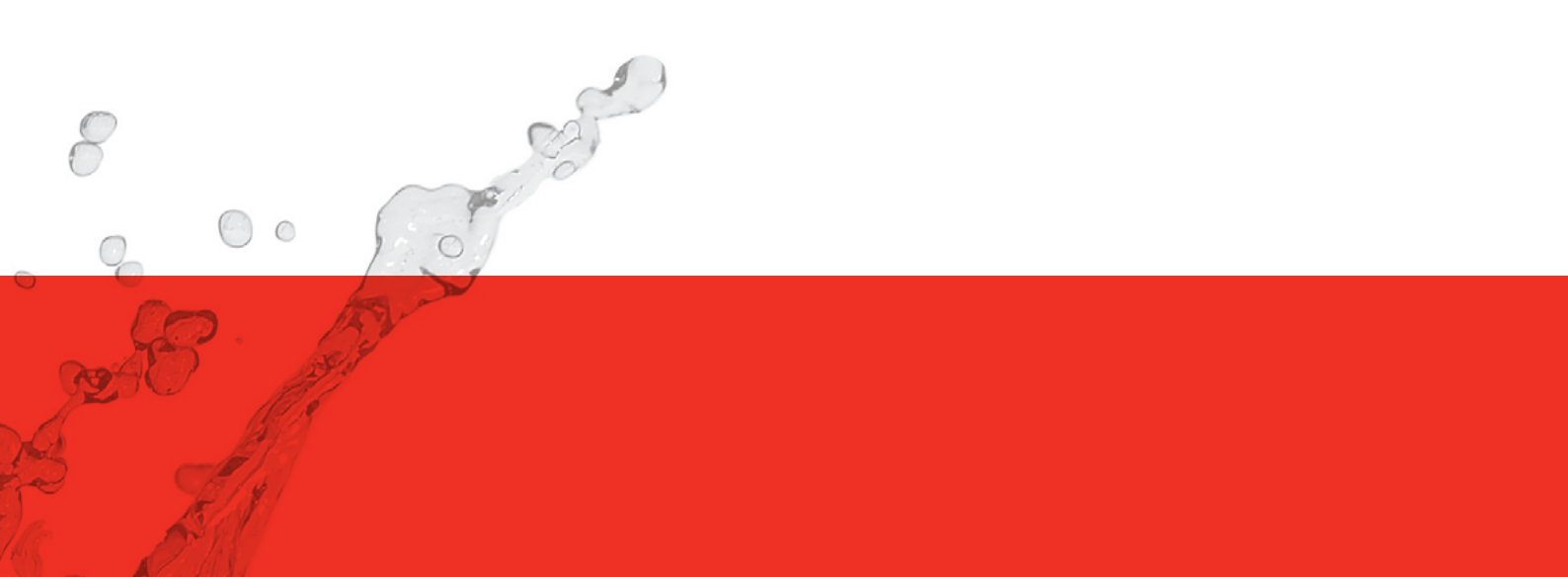
<b>10 Strip Test Kit</b>	CC2718
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#### Refractometer

- Determines the freeze point protection for coolants
- More accurate than test strips or float-type hydrometers
- Durable storage case included

<b>PGPlus</b>	CC2800
<b>PG Platinum</b>	CC36090



## FleetguardMAP™ Coolant Test Kit



### FleetguardMAP Test Kit

- Easy to use test kit
- Quick and reliable analysis of samples
- For use with both Cummins Filtration coolant and other branded coolant

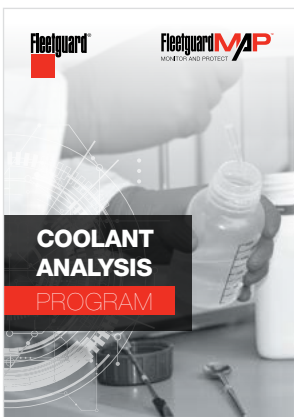
<b>FleetguardMAP Test kit</b>	CC36167
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### Vacuum Pump

Used for the Vacuum Extraction Method for sampling. The pump is re-usable, however, new tubing must be used for each sample.

<b>Vacuum Pump</b>	CC2802
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### FleetguardMAP

The FleetguardMap coolant analysis program is a fluid monitoring service offered to complement our customers own predictive and preventative engine maintenance platforms. This service provides information to the customer on the health of the engine or engine's coolant in an easy to read report. This alerts the customer to potential cooling system issues and recommends if action needs to be taken to prevent expensive engine failures or equipment downtime.

#### Benefits:

- Reduced maintenance costs through early identification of minor problems before they become major failures
- Potential for extended fluid drain intervals by changing coolant based on its condition rather than time between drains
- Quick and reliable access to results via a cloud-based, secure login portal. Direct access to a coolant technician to liaise with about problems or failures and provide resolution support
- Historical data back-up, should a warranty claim occur
- Lower Total Cost of Ownership (TCO) through improved operational efficiencies achieved by maximizing equipment uptime via improved asset protection, added reliability and the scheduling of repairs
- Increase equipment resale value through documented sampling and reporting history



# COOLANT PRODUCT GLOSSARY

**Antifreeze:** A mixture of glycol or glycerin base plus an additive package. The base provides freeze and boilover protection, while the additive package prevents corrosion, liner pitting, and the formation of scale and deposits.

**ASTM:** American Society for Testing of Materials ([www.astm.org](http://www.astm.org)), the most important standards-setting organisation in the world, publishes specifications most commonly cited, ASTM D-3306 for cars and ASTM D-6210 for trucks and ASTM D-4985 for old trucks.

**Conventional Coolant:** A coolant whose additive package is made up entirely of conventional additives such as borate, molybdate, nitrite, nitrate, phosphate, and silicate.

**Coolant:** The fluid in the cooling system, typically it will be composed of 50% antifreeze concentrate and 50% water.

**Coolant Bases:** Chemicals used in antifreeze to lower freeze point and increase boil point. The most common coolant bases include ethylene glycol (EG), diethylene glycol (DEG), propylene glycol (PG), and glycerin.

**Coolant Types:** Coolants are divided into three types depending on the chemicals used in the additive package. The three coolant types are: conventional, organic acid or OAT, plus hybrid.

**Fully Formulated Coolant:** Another term for a heavy duty antifreeze/coolant. Unlike light duty coolant, a fully formulated coolant contains additives to prevent liner pitting and scale/deposit formation.

**Heavy Duty Coolant:** Fully formulated to provide buffering capacity, corrosion, erosion, and liner pitting protection. Also provides foam, scale, and deposit control.

**Hybrid Coolant:** A coolant with a mix of both conventional and organic acid additives.

**Light Duty Coolant:** Formulated to provide buffering capacity, corrosion protection, and control foam tendencies.

**Molybdate:** A conventional coolant additive used in premium long life coolants. Molybdate when used with nitrite provides optimum liner pitting protection as well as increases a coolant's ability to protect aluminium.

**Nitrite:** A conventional additive found in many heavy duty SCAs and antifreezes. Nitrite provides excellent liner pitting as well as steel and cast iron corrosion protection.

**OAT Coolant:** Organic Additive Technology coolant. Composed primarily of organic acids with very limited or no use of conventional additives.

**Organic Acid:** Type of coolant additive that has become much more popular in the past 10 years. Organic acids are also referred to as the term carboxylate. There are several organic acids commonly used in coolants such as benzoic, sebacic, adipic, and so on.

**Phosphate:** A conventional coolant additive used to provide buffering capacity plus aluminium corrosion protection. Detroit Diesel along with some European OEMs do not recommend coolants that contain phosphate.

**Precharged:** A term used to describe the addition of SCA to a light duty coolant to make it acceptable for heavy duty service. This practice is now seldom used with the wide availability of fully formulated heavy duty coolant.

**Premix Coolant:** Coolant where the antifreeze concentrate is already cut with water and delivered to the customer ready to use. Water content of premix coolant generally runs in the 40% to 60% range depending on climate and altitude.

**Reserve Alkalinity:** The measure of a coolant's ability to resist pH change caused by exhaust gas leakage into the cooling system, plus the thermal breakdown of glycols.

**SCA:** Supplemental Coolant Additive. The products are available in liquid form or a solid contained within a coolant filter. SCAs are a mixture of chemicals that provide corrosion, liner pitting, and scale/deposit control similar to the additive package in an antifreeze. They can be used to replenish the additives in an antifreeze coolant or used alone in water only coolant.

**Total Hardness:** The amount of both calcium (as  $\text{CaCO}_3$ ) and magnesium (as  $\text{MgCO}_3$ ) in make-up water which indicates the potential to form scale and deposits in the cooling system. EMA, ASTM, and TMC limit make-up water total hardness to 170ppm.

# DIESEL FUEL INJECTOR CLEANER

## DIESEL FUEL INJECTOR CLEANER



In today's high-performance diesel engines, fuel and contaminants can combine to form harmful deposits especially when exposed to high temperatures and pressures associated with advanced fuel injection system equipment. Traditional fuel additives may not be effective in removing or preventing such deposits, which may in turn affect engine and fuel system performance through increased white or black smoke, power loss, reduced injector life and reduced fuel economy. Diesel fuel injector cleaner can assist in the following ways:

- Restores injector performance
- Restores power
- Prevents new deposits from forming
- Effective on both traditional and ULSD-based soapy deposits
- Optimises fuel economy
- Reduces white and black smoke

Product Usage	Treatment Ratio (Additive: Fuel)	Treatment rate per package (Litres)		
		1L CC36095	4L CC36096	20L CC36097
Initial Use	1 : 1,000	1,000	4,000	20,000
Maintenance	1 : 5,000	5,000	20,000	100,000

# DIESEL EXHAUST FLUID (ADBLUE®)

## ADBLUE® / DIESEL EXHAUST FLUID (DEF) INLINE FILTER



- Extended service intervals
- 5 times more capacity than traditional in tank AdBlue filters
- Simple to fit and service
- Additional protection for the AdBlue system
- Robust and durable



<b>Fleetguard Inline Filter</b>	<b>Part #</b>
Assembly	UF109
Replacement Element	UF108
Installation Kit	UK177



## ADBLUE®



SCR systems require a reagent as part of the process to convert toxic Nitrogen Oxide gas (NOx) emitted from diesel exhaust, into harmless nitrogen and water. That reagent comes in the form of Fleetguard AdBlue, an Aqueous Urea Solution of 32.5% urea that is mixed in exacting proportions of deionised water (AUS32). This ratio is important to meet the correct rate of emission control requirements.

- Fleetguard AdBlue is manufactured, tested and packaged in Australia to meet the highest quality standards as determined by ISO22241
- Cummins Filtration's world-class production facility is the first of its kind in Australia to be voluntarily accredited by the German Association of the Automotive Industry (VDA) in the processes required to manufacture AdBlue
- No matter your location, we've got an AdBlue solution for you. Choose from packaged or bulk supply, delivered to your door

<b>Fleetguard AdBlue</b>	<b>Part #</b>
10L	CC36058
20L	CC36059
205L	CC36060
1000L	CC36061
Bulk 20,000L	CC36094

# DIESEL EXHAUST FLUID (ADBLUE®)

## ADBLUE PUMPING EQUIPMENT

### Hand Operated Transfer Pumps



Description	Part #
Rotary barrel pump c/w adaptor, hose & SS nozzle	FP-332080-GB
Standard rotary pump & adaptor only	AP-RP90P-USA

### Gravity Feed Kits



Description	Part #
Gravity feed kit c/w 4m hose, IBC adaptor & manual nozzle	FP-155170

### Nozzles



Description	Part #
Manual on/off nozzle only with swivel	AE-PPM90ADB
Automatic standard shut off nozzle	FP-A10
Automatic shut off nozzle c/w magnet	FP-A10MF

### Flow Meters



Description	Part #
Inline digital turbine meter	AE-CK24ADPM

### 12V Electrically Operated Kits



Description	Part #
12V 205L drum kit c/w 6m hose, suction kit & manual nozzle	FP-201AA0
12V IBC kit c/w 6m hose, suction kit & manual nozzle	FP-201AA1

## Air Operated 205L & IBC Kits



Description	Part #
2:1 ratio air operated IBC kit c/w 4m hose & automatic nozzle	AE-KP21A
2:1 ratio air operated IBC kit c/w 4m hose & manual nozzle	AE-KP21M
<i>*Air operated kits do not come with inline digital meter</i>	

## Electrically Operated IBC Kits



Description	Part #
240V electric IBC kit c/w 6m hose, bottom suction kit, meter & auto nozzle	FP-201B10

## Hose Set



Description	Part #
Six metre replacement hose set for FP-201B10	FP-BQ20X6

## 240V Pump Kit for 205 Litre Drums



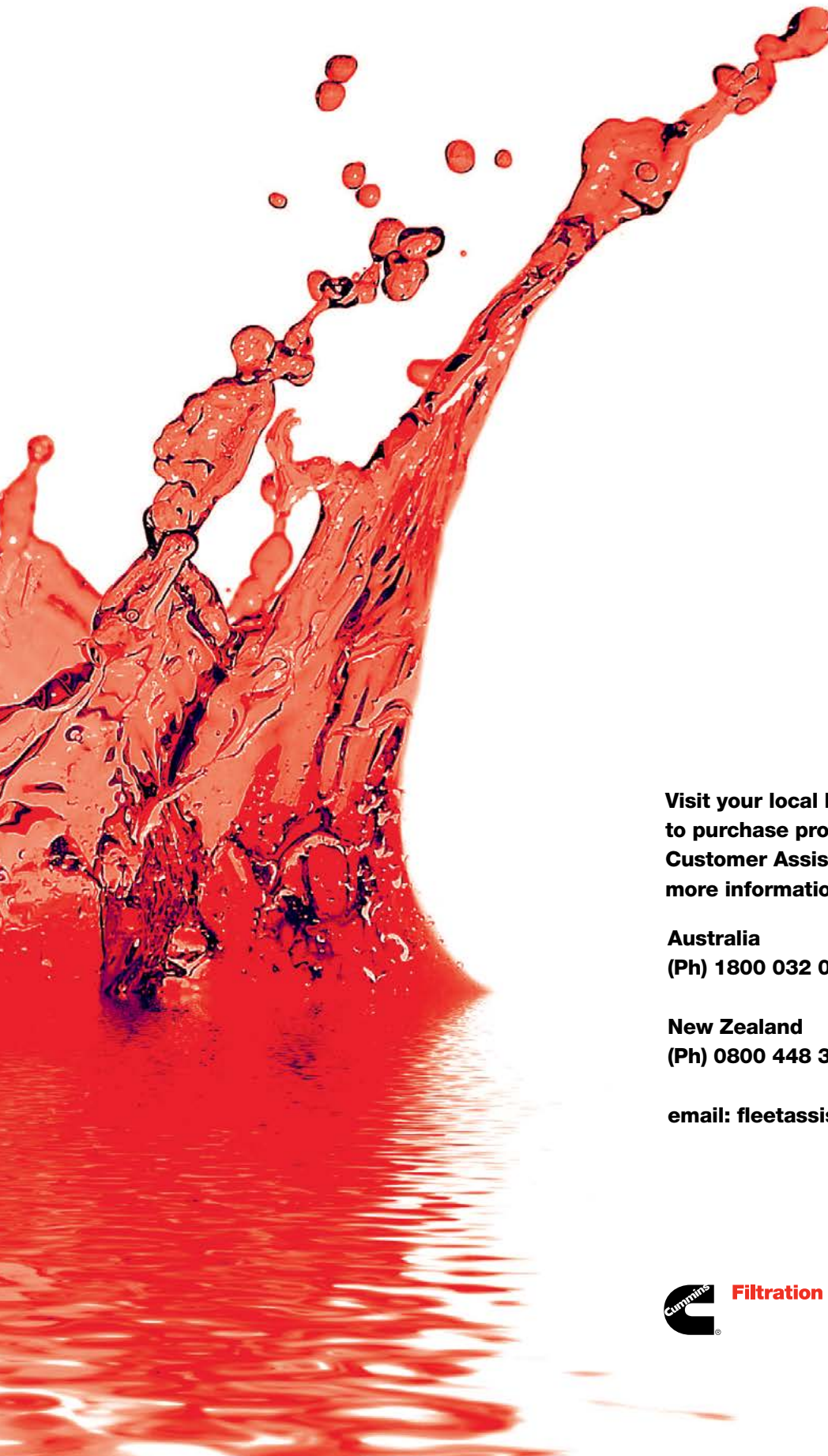
Description	Part #
Kit includes: pump, bracket, suction kit, 4m delivery hose & manual nozzle	FP-20135C

## Drum Trolley



Description	Part #
3 wheel heavy duty drum trolley	AP-1305

**Warranty: All equipment has a 12 month warranty from date of purchase.**



**Visit your local Fleetguard stockist  
to purchase product or call  
Customer Assistance for  
more information:**

**Australia  
(Ph) 1800 032 037 (Fax) 1800 032 036**

**New Zealand  
(Ph) 0800 448 363 (Fax) 0800 448 367**

**email: [fleetassist.australia@cummins.com](mailto:fleetassist.australia@cummins.com)**



For more information visit  
[fleetguard.com.au](http://fleetguard.com.au)

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