

# METALGUARD® A80

## Heavy-Duty, Nitrite Free Extended Life Coolant Additive Package

### Overview

METALGUARD A80 is heavy-duty, nitrite free additive package that allows you to make antifreeze meeting ASTM D6210 and ASTM D3306 specifications. A80 meets the performance requirements of ASTM D6210 without nitrite or nitrite/molybdate but still provides wet sleeve cylinder liner cavitation protection due to its unique formulation. A major advantage of this type of additive system is that it provides total cooling system protection for 600,000 on-road miles without the use of additive-containing coolant filters or supplemental coolant additives (SCAs).

The addition of a METALGUARD A80 Extender is recommended at approximately 300,000 miles or when needed. It is recommended that a sample of the coolant be inspected quarterly to detect any problems such as significant color change, pH change, phase separation, precipitation, cloudiness, or obvious contamination. With the same maintenance program, A80 will provide protection for off-road applications up to 12,000 hours or 6 years whichever comes first.

Coolant made with METALGUARD A80 is much less sensitive to water hardness chemicals, which cause scale formation, because of its low chemical reactivity. This low reactivity also makes coolant made with A80 much less sensitive to contaminants such as motor oil and other coolants.

Coolant made with METALGUARD A80 will be suitable for passenger cars, vans, SUVs, light trucks, heavy-duty vehicles and many off-road applications such as stationary engine cooling systems. It will provide superior corrosion protection for all cooling system metals, including aluminum, steel, cast iron, copper, brass and solder alloys.



### Features & Benefits

- Can be used for all heavy-duty diesel, gasoline and natural gas engine cooling systems.
- Ideal for mixed fleet use (both HD and LD engines).
- Does not contain: Does not contain: nitrite, nitrate, silicate, phosphate, borate or 2-ethylhexanoic acid.
- Eliminates the need for SCAs and chemically charged filters.
- Provides long-term compatibility with hoses, seals and gaskets.
- Contains anti-scalants and dispersants to prevent scaling and fouling of heat exchange surfaces.
- Can be blended with ethylene glycol, propylene glycol or glycerin bases.
- On-Road Service Life up to 600,000 miles.
- Off-Road Applications up to 12,000 hours or 6 years whichever comes first.



### Specifications

Formulated to meet:

- ASTM D3306
- ASTM D6210
- TMC of ATA RP 329/330/338



### Industry Applications

**Used to make antifreeze/coolant for:**

- On-Road Heavy-Duty Diesel Trucks
- Mixed fleet applications
- Heavy-Duty Stationary Engines
- Natural-gas-powered heavy-duty on and off road equipment.
- Gas and Oil Field Industrial Coolant



### Quality Control & Technical Support

WEBA's products must pass rigorous quality control tests. They are tested for conformance with product specifications and industry standards. Certificates of analysis are provided with every shipment. WEBA Technology can help with many technical questions relating to the finished fluids our additives create, types of glycol and other bases, and assist with issues on products containing our inhibitor packages.



**WEBA**  
TECHNOLOGY



info@webacorp.com  
www.webacorp.com



500 Cummings Center, Suite 6050  
Beverly, MA 01915 USA  
+1 812-822-3658



## Product Specifications

### As concentrated inhibitor package:

Visual	Clear to slightly cloudy, clear to amber liquid
Specific Gravity; 70°F/21.1°C	1.157-1.167
pH	8.8-9.8

### As antifreeze concentrate, ethylene glycol base:

Specific Gravity; 70°F/21.1°C	1.110-1.145
pH	8.0-9.0
Freeze Point; 50%	-34°F (-36°C) max.
Reserve Alkalinity	7.0 min.



## Blending & Use Instructions

**METALGUARD A80** should be blended with glycols meeting ASTM E1177 EG-1, EG-2, PG-1 or PG-2 requirements. Dilution water should be deionized or at least meet the limits given in Table X1.1 in the appendix of ASTM D6210 standard.

**Blending:** Upon opening the drum of additive, stir thoroughly. Do not use high speed agitation. If you use only a portion of the drum (i.e. a few gallons at a time) you need to mix the drum of additive prior to pulling out the required amount. If you use the entire drum to make a bulk blend you do not need to mix the drum prior to use.

**To make antifreeze concentrate:** First charge the desired quantity of glycol to the blending tank. Heat the glycol to 50°F (10°C) or higher. Maintain the minimum temperature throughout the blending procedure. Good agitation is vital to making a consistent and proper product; agitate for 30-60 minutes after the addition of the additive package.

**Minimum Use Rate:** Based on the quantity being manufactured, add 5.0% by volume.

**Premium Heavy-Duty Applications:** Based on the quantity being manufactured, add 8.0% by volume.

**To make Premix:** Option 1: dilute concentrate 50% by volume. Option 2: If you are making premix (ready-to-use) from scratch, the METALGUARD additive, antifoam, dye and bitterant are considered part of the water portion. The concentration (percentage) of water will need to be adjusted to achieve a proper freeze point as required by ASTM D3306.

**Minimum Use Rate:** Based on the quantity being manufactured, add 2.5% by volume.

**Premium Heavy-Duty Applications:** Based on the quantity being manufactured, add 4.0% by volume.

**Antifoam:** Add the appropriate amount of antifoam to allow your product to pass a foam test. Use 0.01% by volume or 0.5 gallon (1.90L) per 5000 gallons (18,925L) of antifreeze concentrate (0.25 gallons/0.95L in 50/50). More may be needed depending upon glycol-base quality. Antifoam may be purchased in 5-gallon (18.93L) pails from WEBA Technology.

**Dye:** As the last step add the color of dye that you wish to use. If you need help determining dye colors or use rates you may contact us.

**Testing:** Test your finished product to be sure it conforms to specifications. See below paragraph on quality control.

**Storage:** Store concentrated additive packages above 60°F (15.5°C). If a container arrives cold to your warehouse, immediately place it in a hot room for 1-2 days then stir thoroughly prior to use. Alternatively, heating blankets may be used (follow local regulations regarding their usage) Once a container is opened there is a possibility of the liquid phase evaporating, so close the container tightly after each use. High temperatures, above 100°F (38°C) for an extended duration, may also cause degradation of the inhibitors. If you are in an area of the country with continuous high heat, store the additive in a cooler area of your warehouse.

**Water Quality And Dilution:** When antifreeze concentrate is diluted with water, the water for dilution must be of acceptable quality. Deionized water is the best to use, but other sources of water are acceptable if they meet the water quality limits outlined in both ASTM D3306 and ASTM D6210.

**Quality Control Procedures:** WEBA strongly recommends that all antifreeze producers have an internal, complete quality control program in place for manufacturing and testing of all products made for sale. It is recommended that antifreeze/coolant be inspected at 90-day intervals to detect any obvious contamination, phase separation, cloudiness, precipitation or significant pH change. A full analysis of coolant is recommended at least every 300,000 miles, or when visual, pH checks or other monitored physical properties indicate a problem.

The specifications listed in this bulletin are based on products produced with WEBA's additive packages, virgin glycol and deionized water. To confirm that your finished products meet the required industry specifications, WEBA recommends that you test your glycol and finished products at an accredited laboratory. WEBA will warrant our additive packages only if this procedure and the recommended blending and storage procedures are properly followed and documented. In addition, the glycol or other base fluid used with our additive systems should meet industry or ASTM standards unless specifically exempted in our literature. ©2025 WEBA Technology, All Rights Reserved.