



Cooling System Maintenance

**The Best
Leak Solutions
Since 1938**

**How to Choose the
Right Leak Repair
Solution for the Job**

**K&W Block Seal:
One of the First Coolant
Additives to Provide
PERMANENT Repair**

**K&W FiberLock®:
Advanced Chemistry
Pour-&-Go Formula with
Military-Strength Fibers**



www.crcindustries.com
www.facebook.com/crcauto
www.youtube.com/crcauto



Head gaskets can fail for various reasons, including engine overheating and pre-ignition or detonation, but many times it's simply because the vehicle is old and the head gasket can no longer withstand the pressures of the cooling system. At this stage in a vehicle's life-cycle it is common that a mechanical repair will cost more than the total value of the vehicle.

For the professional, a head gasket repair is time-consuming and not very profitable. For the do-it-yourselfer, the repair can be extremely expensive. This is why CRC provides cost- and time-effective alternatives to head gasket, engine block and cooling system repairs for both DIY and professional users.

Which product is best for me?

CRC offers two different types of cooling system repair products: **Permanent** and **Semi-Permanent**. Both types address cracks or holes in cooling systems, head gaskets, intake gaskets, engine blocks, radiators, heater cores and cylinder heads. All of the CRC permanent and semi-permanent cooling system repair formulas can be used in water-cooled gasoline and diesel engines, including cars, trucks, buses, heavy-trucks, construction and farm equipment.



Permanent Repair Products:

Permanent repair products like the ones listed here typically use a thermo-chemical solution of sodium silicate (liquid glass) as a base. Sodium silicates are activated by the extreme temperatures and pressures prevalent in the cooling system when there is a breach or a crack. The material solidifies at the hot spot forming a seal as strong as steel. The additional raw materials in each formula are what make the products unique.

- K&W® FiberLock® Head Gasket & Block Repair (#401224-6)
- K&W® Head Gasket & Block Repair with Nanotechnology (#401232)
- K&W® Original Permanent Metallic™ Block Seal (#401016)

Emergency or Semi-Permanent Repair Products:

Products like these typically rely on cooling system pressure to maintain a seal. While they don't form a permanent repair, they will stop leaks as long as the product remains in the cooling system. The repair will last long enough to allow users to get home, reach a repair shop and, for small leaks, may end up lasting hundreds of miles.

- K&W® Nanotechnology Instant Cooling System Stop Leak (#401210)
- K&W® Heavy Duty Radiator Stop Leak (#401211)

WARNING SIGNS INDICATING POSSIBLE OVERHEATING:

- Temperature gauge or warning light on dash
- Steam or water vapor coming out from under the hood
- Hot engine smell, "syrup" or sweet smell
- Heat coming into the cabin of the vehicle

Do not ignore any of these symptoms!

An overheating engine can quickly become a serious problem and can blow the head gasket or warp or crack the cylinder head or block.

WARNING SIGNS INDICATING A POSSIBLE BLOWN HEAD GASKET OR CRACKED HEAD:

- Coolant loss or leakage
- Water in oil
- Constant overheating
- Bubbling or foaming coolant
- White smoke out of the tailpipe
- Rapid cooling system pressure build-up before engine is warm
- Low cylinder compression
- Coolant on spark plugs
- Engine power loss
- Very rough idle



**I need a
PERMANENT
leak repair
product that is
EASY TO USE.**

401224-6

MILITARY-STRENGTH FIBERS

Proprietary lightweight fibers with a high strength-to-weight ratio make an interlocking web-like weave over the breach, ensuring a permanent, multi-layer impenetrable repair.

NANO-TECHNOLOGY

A = A typical block repair product attempting to adhere to a metal surface, but the particles are too large leaving room for leaks.

B = K&W® FIBERLOCK® with nanoparticles making a stronger and more solid bond to the metal and its own particles.

(Dramatization)

COOL-X™ CONDITIONER

COOL-X™ Conditioner circulates in the cooling system for lower operating temperatures and improved heat transfer after the repair is made.



PERMANENT, POUR & GO

- For DIY'ers or Professionals
- Premium Product
- Newest Technology
- Pour & Go Formula
- Permanent Repair
- Antifreeze Compatible (no flushing required)
- DOUBLE Money Back Guarantee
- Approx Retail: \$35-40



I just wanted to let you know that your FIBERLOCK sealer is one awesome product! I have sold several bottles and every person that I sold it to was a little skeptical but within days almost all of them have called me back to tell me how fast the stuff worked. I have one customer that put it in their shop car (which gets the living daylights beat out of it) over 2 months ago and it is still perfectly sealed. I know like most of us in the retail world that you usually only hear from someone when something doesn't work. Well I just wanted to let you know how well this product works! Race season is just starting out here in the midwest and we will be taking some of this with us to the track to try to get racers to use it for a quick fix at the track (on close to stock compression engines anyhow).

–Dan, Algona, IA

FIBERLOCK® DIRECTIONS:

For use in the cooling system of any diesel or gasoline vehicle. K&W FIBERLOCK works with ALL types of antifreeze and, for racing applications, can be used with straight water.

DO NOT ADD TO ENGINE OIL.

CAUTION: To avoid severe burns, allow engine to cool completely before removing radiator cap. For best results, prior to use, flush dirty or clogged cooling systems with K&W 7-Minute Radiator Rapid Flush #401320.

1. SHAKE WELL. **IMPORTANT:** Check chart below for proper treatment ratio.

TREATMENT RATIO:

For smaller cooling systems,
1/2 bottle treats up to 10 quarts.

For larger cooling systems,
use 1 bottle per 24 quarts.

One bottle treats up to 30 quarts
(7.5 gallons) of coolant.

FEATURES & BENEFITS:

- The latest technology in permanent repair for a cracked block or head gasket
- Perfect for DIY customers; EASY TO USE – just pour and go!
- Thermochemical sodium silicate reinforced with military-strength fibers create a web-like weave over the crack for a multi-layer repair
- Nanotechnology reaches cracks and crevices other products can't
- Cool-X™ Conditioner circulates in the cooling system for lower operating temperatures & improved heat transfer
- Independent lab* test (ASTM D3147) proved that K&W FiberLock® sealed larger holes and slots with less fluid loss than competitive products

*Amalgamated Laboratories, Inc., Phoenix, AZ

2. Slowly pour FIBERLOCK directly into radiator. **NOTE: Do not pour product into overflow tank. If you do not have access to radiator cap, detach top radiator hose and pour FIBERLOCK directly into hose. Reattach hose and clamp.**

3. Replenish antifreeze to proper level and replace radiator cap.

4. Turn heater on high and idle engine until normal operating temperature is reached (about 15 minutes.) Check fluid level and top off if needed. Leave FIBERLOCK in cooling system for continued protection.



I used your K&W Permanent Head Gasket & Block Repair with Nanotechnology, and it worked. I had a very large leak between the head and the intake manifold; it would have cost \$800.00 to repair. I was at AutoZone yesterday, and the store manager said your stuff would fix my problem. For \$20.00 I took a chance, and WOW am I happy, I have been driving my car all day today. If it is really "permanent," then I will continue to be happy! Thank You, Thank You Thank You.
 –Cary

Dear CRC: This is a Great Product. I just returned home to Canada from Indianapolis. It is a 10 hour drive and over 570 miles. I was in Indy drag racing and road racing my 73 455 Trans AM. I drive it to and from the track so I was in a bind when I blew a head gasket. There was water in the oil and blowing the mixture out the breather. I had to add a fair bit of water just to get it back to the hotel. I dropped into the local NAPA dealer, and he told me to try your product, K&W Permanent Head Gasket & Block Repair with Nanotechnology. I changed the oil and filter (what a mess) and followed the instructions on the bottle. Left the car sitting overnight, then flushed the system and headed home. The trip was 10 hours and it didn't use a drop of water. I really didn't think it was going to work. Is this product available in Canada? After this I would keep a bottle just in case. Thanks for a GREAT product, it saved my bacon.
 –Ralph from Canada

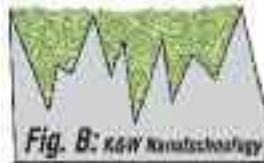
My personal car is a 1991 Ford Escort which has about 90,000 miles on it. The head gasket failed recently and my mechanic told me how much it would cost to rebuild/replace the motor. I simply can't afford to spend that much, nor can I afford to replace the car. He suggested I try K&W Permanent Head Gasket & Block Repair with Nanotechnology. I took his advice and I am happy to say that the car is now running just fine. I can't thank you enough.
 –Valentine



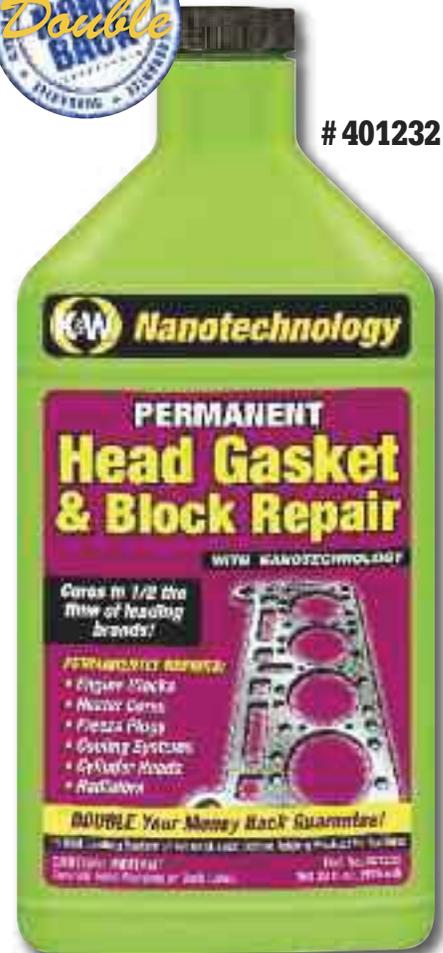
I perform my own maintenance. I need a PERMANENT leak repair product.

PERMANENT, PROFESSIONAL GRADE

- **For Heavy DIY'ers or Professionals – Requires Draining and Flushing Cooling System**
- **Cures in 1/2 the Time of Other Leading Brands**
- **Immediate Permanent Repair**
- **DOUBLE Money Back Guarantee**
- **Approx Retail: \$20-25**



401232



FEATURES & BENEFITS:

- Nanotechnology provides the tightest molecular bond available; nanoparticles fill cracks and crevices in metals and plastics that other products can't
- Does not rely on cooling system pressure to maintain a seal
- Withstands extreme pressure and heat
- Will not break away or wash out
- One bottle treats 4, 6 or 8 cylinder engines
- Not compatible with antifreeze

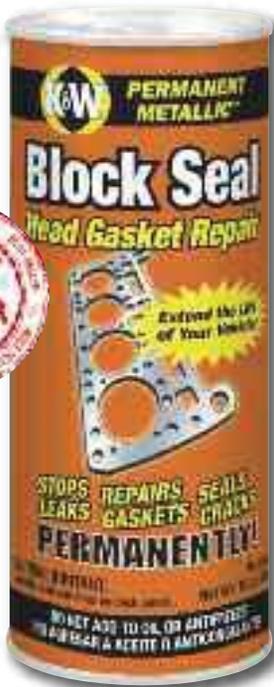
Nanotechnology: Why It Works Better

Nanotechnology deals with objects or particles that are measured in nanometers which are one billionth the size of a meter. These particles are so small that thousands of them could fit into the width of the period at the end of this sentence.





401016



PERMANENT, PROFESSIONAL GRADE

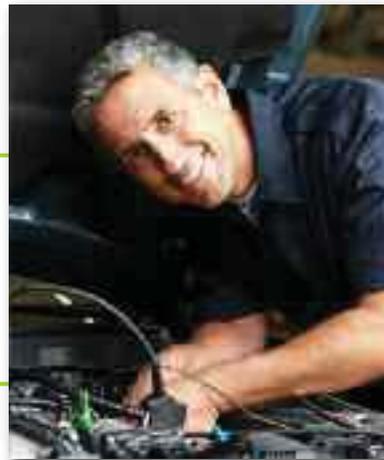
- For Heavy DIY'ers or Professionals – Requires Draining and Flushing Cooling System
- The Original Block Seal
- Top Seller
- Value-Priced Product
- Immediate Permanent Repair
- Approx Retail: \$10-15

I want to offer my customer an alternative to a costly head gasket replacement.

FEATURES & BENEFITS:

- Better value than other similar products
- Fixes the damaged area and then is drained so only anti-freeze and water run through the cooling system, unlike other brands
- Formulated with sodium silicates for a permanent molecular seal as strong as steel
- Not just a wood/pulp filler that plugs the leak while the system is under pressure
- Withstands extreme pressure and heat
- Will not break away or wash out
- Independent lab* test proved that K&W Block Seal meets the machine performance requirement of Standard D6107
- Not compatible with antifreeze

*Amalgamated Laboratories, Inc., Phoenix, AZ



Why Should I Use a Coolant Additive to Repair Leaks & Cracks Instead of Replacing the Damaged Part?

Block sealer products are not always the best answer. It depends on the individual vehicle and situation. Here are some reasons to consider using a coolant additive:

- Repair is too costly
- Repair is too time-consuming
- Value of vehicle is less than the cost of the repair

I hope you guys fully understand just how great your product is and how much it really helps the little man in today's world. I bought a used Chevy Blazer and found out it had a blown head gasket, and trying to make ends meet nowadays is hard enough. The repairs would have been around a thousand bucks or more, no way could I afford that. I got online and started seeing different people talking about your product. The truck was using about a gallon a day of water, had to use just water, antifreeze was way too much money to pour straight on the ground. There were three leaks on the drivers side, so bad that it would pour out on the floor when I was pouring it into the radiator and the truck was not running. I used your K&W Block Seal and just like the instructions said, within 20 to 30 minutes it totally stopped leaking and the exhaust dried up. I have been driving it for about 4 months now and I check my radiator level and it has not gone down one bit, no overheating, no antifreeze smell, the truck is great now. Thank you so very very much.

–Dave

I just wanted to drop you a line to tell how pleased I am with your product. I spent over \$250 for gasket kits only to find I had a warped head and my problems persisted. I used just 1 can of K&W Block Seal, followed easy directions, and now over 2 weeks after the fix there are no more overheats or leaks. I do not usually write, but I thought a testimonial is required because of my positive experience. Thank you!

–Jay from Florida

I have a 1993 Ford Ranger that has 225,000 miles on it. The truck is in good condition and runs great. A couple of weeks ago, I was told I had a leak in the front block gasket on my truck. I was losing coolant sporadically and the leak appeared to be getting worse with time. That was not good news for me because, financially, I could not afford to fix the gasket (estimated \$1200-\$1500) and I was not ready to part with this old truck just yet. I went to Walmart about a week ago to purchase more antifreeze and saw the K&W Block Seal can on the top shelf. I had never heard of this product. So, I thought I had nothing to lose and purchased it. I followed the directions exactly that same day on my truck. I still cannot believe it, BUT IT WORKED. My block dried up and currently, I see no apparent leak in that area. I cannot believe it. I even told my wife that if this \$8 can of gunk works, I'll take her out to dinner at our favorite restaurant. Dinner was great by the way.... I just wanted to thank you for selling a product that actually worked better than I truly expected. I wish you and your company continued success. Thanks again.

–Michael from Illinois





Directions: K&W Block Seal and K&W Head Gasket & Block Repair with Nanotechnology



The below instructions should be followed when using either K&W Permanent Metallic™ Block Seal (#401016) or K&W Head Gasket & Block Repair with Nanotechnology (#401232).



PREPARATION: Park vehicle in a spot where it can sit for at least 24 hours. Products needed: K&W Block Seal OR K&W Head Gasket & Block Repair with Nanotechnology, Radiator Flush and Radiator Anti-Rust. Other products and tools required: antifreeze, drain pan and basic hand tools.



Step 1: Drain antifreeze into drain pan. Product cannot be added to coolant because it will solidify. *Tip: If you plan on reusing current antifreeze, drain into a clean pan. It is suggested that you use new antifreeze.*



Step 2: Flush cooling system Why? To remove scale, rust and corrosion. This will aid the sealing process and clean the cooling system. *Tip: Using a "back-flush" kit is the most effective method of flushing.*



Step 2 (repeat): Flush, Flush, Flush! This may be the most important step. Flush the cooling system until the water is clear and there is no antifreeze present. Turn on the heater and defroster while vehicle is running. This will ensure that the thermostat is open resulting in faster warm-up time. If possible, remove the thermostat and replace after leak has been repaired. *Tip: If you are experiencing an internal coolant leak (compression leak), remove and check spark plugs for corrosion or fluid appearance. You may also run a compression test. Upon determining the affected cylinder(s) remove the spark plug and disable the fuel injection before the next step.*

Step 3: Mix product with water In a separate container, mix entire can or bottle of product with 3 quarts of clean warm tap water. Shake/mix the solution before adding to the empty cooling system. (Container may be pressurized, hold away from face when opening.) *Tip: Use a clean plastic milk jug to mix product and water.*



Step 4: Add product/water mixture Pour entire product/water mixture into cooling system. Immediately start the vehicle, top-off with water, replace the radiator cap and let the vehicle idle for a minimum of 20 to 30 minutes. If vehicle overheats, turn off vehicle and let temperature return to normal before restarting for remaining time frame. *Tip: If the thermostat has not been removed, turning on the heat and defrost will ensure the thermostat opens.*



Step 5: Let vehicle cool After vehicle is cool, remove radiator cap and drain cooling system. *Tip: There is not a specific time frame for cooling. You may drain cooling system when you feel comfortable removing the fluid.*



Step 6: Drain and Cure Remove radiator cap and open all drain cocks to allow air to circulate in the cooling system. Removing the lower radiator hose will help in allowing more air into the coolant system. Let empty cooling system dry for a minimum of 24 hours for K&W Block Seal or 12 hours for K&W Head Gasket & Block Repair with Nanotechnology. *Tip: Product needs air to cure and form a permanent bond. The longer it can dry, the better the adhesion.*



Step 7: Flush and Add coolant After drying time has elapsed, flush coolant system until clear and fill with a 50/50 mix of antifreeze and water. (You may add anti-rust or other additives if desired). Let vehicle idle until hot. **THE LEAK HAS BEEN REPAIRED!** Reinstall thermostat if it was removed during the process. Change oil and filter if oil is contaminated. An engine oil flush is recommended if the oil is extremely dirty. Check coolant level frequently over the next 100 miles.



**I need an
EMERGENCY
repair product
so I can drive
my vehicle to an
auto repair shop.**



INSTANT COOLING SYSTEM STOP LEAK DIRECTIONS:

ADD TO ANTIFREEZE – DO NOT ADD TO ENGINE OIL.

1. With engine off and cooled, remove radiator cap.
2. Shake bottle well. Pour contents into automobile or light truck radiator (1 bottle treats cooling systems up to 20 quarts). Top radiator off with antifreeze-water solution.
3. Replace radiator cap.
4. Run engine at fast idle until leak stops.

Instant Cooling System Stop Leak with Nanotechnology

- Just pour into radiator and go!
- Works great as an emergency repair
- Approx Retail: \$5 - 9

FEATURES & BENEFITS:

–Add directly to coolant to seal leaks in cylinder heads, gaskets, blocks and throughout the cooling system

–As an emergency cooling system repair, allows user time to drive vehicle home or to an auto repair shop

–Uses nanoparticles to seek out leaks and form a stronger more durable bond than other pour-in products

–Treats cooling systems up to 20 quarts.

–Keep a bottle in car/truck for emergencies

–Compatible with all types of antifreeze **# 401210**



Heavy Duty Radiator Stop Leak

- Pour-in and drive-off formula
- Approx Retail: \$4 - 5

FEATURES & BENEFITS:

–Quickly stops leaks in radiators, gaskets, heater cores and passages

–Seals against seepage and prevents coolant loss

–Add entire contents to radiator while engine is running

–Will not harm hoses or gaskets

–Treats cooling systems up to 22 quarts

–Compatible with all types of antifreeze



HEAVY DUTY RADIATOR STOP LEAK DIRECTIONS:

1. With radiator near full, shake can thoroughly and add entire contents to radiator while engine is running.
2. Run engine at fast idle until leak stops.
3. One 11 oz can will treat cooling systems up to 22 quarts.



401211



Mark Salem
ASE Master Tech
Owner of Salem Boys
Auto in Tempe, Arizona



If water freezes at 32°F, why doesn't my engine freeze when the temperature drops below zero?

Water turns to ice or a solid at 32°F. Your water pump cannot pump ice. So, we lower your freezing point by mixing 50% distilled water with 50% coolant or antifreeze. That 50/50 mixture will give you a freeze point of -34°F. That lowers your freeze point by 66 degrees (+32°F minus -34°F = a 66 degree improvement). You can buy a device for less than \$15 to test your freeze protection. This device will tell you what your freeze protection is. If you did a good job with your service, it will be at -34° below zero.

What about overheating?

Water turns to a vapor or boils at 212°F. For every pound of pressure we put water under, it raises the boiling point 3 degrees. 15 lbs of pressure would raise the boiling point of water from 212°F to 265°F. (These numbers are all altitude sensitive.) So 15 lbs of pressure created by the radiator cap multiplied by 3.5 degrees will move water's boiling point upwards 45+ degrees. So under pressure, your radiator liquid will boil at 245-265°F and not at 212°F.

A large percentage of the engines that are replaced by professional technicians have been damaged beyond repair because of overheating. Others ran low on oil and some simply were worn out.

If you are thinking – If a 50/50 mixture is good, then 70/30 has to be better – get that idea out of your head immediately! Any deviation of this 50/50 mixture will do nothing to make your hot or cold protection any better. 100% coolant will cause your engine to overheat because 100% coolant cannot dissipate heat. Too much coolant can cause your engine to overheat because, like epoxy (or gravy), you need two components in the right amount to accomplish your goals.

The pressure tester to check the performance of your radiator cap is about 20 times the cost of a new cap, so replace the radiator cap with a name brand cap when you service your cooling system.

When servicing your cooling system, be sure to use a good flush to clean and remove the trash from your system. Rinse well with clean water. Then pick an appropriate coolant or antifreeze. You can enhance the properties of your coolant by using a water pump lubricant or rust inhibitor that will not damage your seals and gaskets.



CRC
Radiator Anti-Rust & Water Pump Lubricant

For use in cooling systems up to 22 quarts. Lubricates water pump bearings and seals preventing rust and corrosion.

05335



CRC
10 Minute Radiator Flush One-Step Cleaner

Works in 10 minutes! Removes grease, oil, scale, rust and sludge while neutralizing acids in antifreeze.

05337



CRC
Copper Block Weld™ Block & Radiator Sealer

Modified liquid glass formula permanently repairs cracks in aluminum and iron engine blocks and cylinder heads, radiators and freeze plugs using a copper-ceramic sealing system. For cooling systems of 24 quarts and larger.

05371



CRC
Enginkool™ Engine Cooling System

Prevents loss of heat conductivity to cooling system fluids, which causes overheating. Transfers heat from metal to coolant to reduce engine temperatures. Compatible with all anti-freeze solutions.

05348



7 Minute Radiator Rapid Flush

Fast acting formula removes rust, scale and hard water deposits in one application. Contains no acids or chemicals harmful to radiators or cooling systems. One can cleans a four-gallon cooling system.

401320



Part Number	Product Name	Package Type	Net Contents	Units Per Case	Number of Quarts Treated
401224-6	FIBERLOCK	bottle	32 fl oz	6	up to 24 quarts* <i>*use 1/2 bottle for cooling systems 10 quarts and less</i>
401232	HEAD GASKET/BLOCK REPAIR w/ NANOTECH	bottle	32 fl oz	6	up to 24 quarts
401016	BLOCK SEAL	can	16 fl oz	12	up to 24 quarts
401210	INSTANT STOP LEAK	bottle	11 fl oz	6	up to 20 quarts
401211	RADIATOR STOP LEAK	can	11 fl oz	12	up to 22 quarts
05335	RADIATOR ANTI-RUST	bottle	12 fl oz	12	up to 22 quarts
05337	10 MIN RAD FLUSH	bottle	12 fl oz	12	N/A
05371	COPPER BLOCK WELD	bottle	12 fl oz	12	24 qts or larger
05348	ENGINKOOL	can	30 fl oz	12	N/A
401320	7 MIN RAD FLUSH	can	11 fl oz	12	up to 16 quarts

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