



At SEMA, Diesel Tech's Austin Carlisle (from L to R) met up with Bill Hewitt from powerstrokehelp.com, Archoil CEO David Zevetchin and Premier Performance Marketing Director Matthew Davis.

ARCHOIL AR9100 Friction Modifier & AR6200 Fuel Modification Complex



When we first started our DT TESTED section in our magazine, it was these types of product reviews we had in mind. The purpose of our in-house evaluations is to weed through all the hype and get down to answering the basic questions of does the product really work and if so, is it worth the cost? In this case it's actually two products from Archoil that we really wanted to test.

Normally I'm not one to get caught up in celebrity endorsements, but when an auto enthusiast like Jay Leno starts raving about a product, I tend to take notice. It's not too hard to find online videos of Leno promoting Archoil, yet I was still a little hesitant.

At first glance it appears to be a little more money than other additives that I've tried in my diesel trucks over the years. However, when you start looking at the cost per treated gallon it's actually one of the lowest-priced products out there.

Getting Started

Despite my hesitation to try some-

thing new, I was actually a little excited to add AR9100 Friction Modifier to my oil and AR6200 Fuel Modification Complex to my fuel. In order to get my hands on the Archoil products, I just had to make a trip to my local shop. Adrenaline Performance in Shelley, Idaho, is a distributor for Archoil, so after changing my engine oil so I could start fresh, we headed to their shop. This was the week before the SEMA show in Las Vegas, Nev., so with a 1,300-plus-mile road trip coming up we figured the timing couldn't be better to give this product a try.

We added a full 16-ounce bottle of the Archoil AR9100 Friction Modifier (\$41.95) to the engine oil as recommended and also added the Archoil AR6200 Fuel Modification Complex to the fuel tank. The 8-ounce bottle treats 640 gallons and has a suggested retail price of \$49.95. And because the fuel additive is an extremely "condensed" concentrate and contains no unnecessary "fillers," my 2010 Ford F350 needed less than 15 milliliters or a half an ounce per fill up. I'm used to pouring

half bottles worth of fuel additive into my tank for my 6.4L so it almost seemed pointless to add only half an ounce, but the results would later prove otherwise. Worth noting, the bottle is designed to easily pour small amounts so it wasn't hard at all to add the proper amount each time. The cost breaks down to 7.8 cents per gallon of fuel treated, which is comparatively inexpensive on a cost-per-gallon basis. Before we get to the results however, it's important to cover the details of both products.



AR9100 Friction Modifier

AR9100 oil additive is a friction modifier based on advanced nanoborate technology suspended in an ester complex. It is absorbed on metal friction surfaces where it forms a protective solid boundary lubricating film. It also reduces friction and provides outstanding extreme pressure, anti-wear, and anti-corrosion protection to engines, gearboxes and hydraulic systems. AR9100 also helps keep the crankcase clean and extends oil life.

The product improves lubricity by filling surface asperities, creating a smooth hard film. AR9100 has a lower shear

strength than the metal it bonds to so friction between surfaces is reduced (CoF .037 at 3,750 pounds in falex test). This means more power, better fuel economy and less heat from friction as well as a reduction in engine noise and vibration.

Its solid boundary film also provides outstanding extreme pressure and anti-wear protection to friction surfaces during extreme operating conditions (falex test failure at 4,000 pounds) including cold starts, heavy loads and high temperature conditions. AR9100's film quality and strength are enhanced in the presence of extreme pressures and temperatures.



The additive will raise the TBN (total base number) of the oil it is added to, allowing oil to last longer before becoming acidic and needing to be replaced. AR9100's esters resist oxidation, further stabilizing host oil and reducing deposit formation. This extends oil life dramatically, saving money and time.

AR9100 will help keep equipment clean. Nanoborate acts as a mild detergent and esters will impregnate and disperse varnish sludge and carbon deposits over time.

On its website Archoil states that for 6.0L and 7.3L Power Strokes, AR9100 fixes injectors by cleaning and lubricating stuck spool valves. Stiction is eliminated along with associated cold start problems including rough idling, cylinder misfires and loss of power and acceleration. So before you throw down for new injectors, Power Stroke owners need to give AR9100 a try.

Archoil is so confident it offers a 100 percent money back guarantee if it doesn't eliminate HEUI injector stiction issues within 100 miles. The one 16-ounce bottle of AR9100 treats up to 16 quarts of engine oil and is sufficient for one Power Stroke treatment.

AR6200 Fuel Modification Complex

AR6200 protects your engine and improves torque and fuel efficiency by



addressing issues associated with poor quality fuel including sludge formation, water accumulation and incomplete combustion. AR6200 should be added at every refill.



The product produces a clean and more complete combustion event, which results in a reduction of particulate matter (soot/carbon) deposits. Exhaust Gas Recirculation (EGR) systems and turbochargers (particularly variable geometry turbochargers) will remain free of soot and carbon buildup, allowing these systems to operate efficiently and maintaining engine responsiveness. Vehicles equipped with a Diesel Particulate Filter (DPF) will benefit from less frequent and more efficient regeneration, extended service life and reduced maintenance requirements.

AR6200 incorporates a demulsifier that separates water from fuel to be removed by the water separator in diesel engines. Water reduces the lubricity of fuel and can cause excessive wear in fuel injectors or upper cylinder. Water can also damage injector tips and pistons as it rapidly expands into steam when exposed to combustion temperatures. AR6200 also incorporates a dispersant that dissolves dirt and gummed

fuel (sludge) that does not burn readily and can accumulate and plug fuel filters and injectors. A fuel stabilizer prevents the formation of sludge and permits long-term fuel storage (at least up to one year). AR6200 also improves lubricity of fuel and provides some detergency, while a corrosion inhibitor and biocide further protect your fuel system.

Results

Details are important, but in the end all that most people want to know is does it really work? On our trip to Vegas I averaged my prior highway mileage between fill-ups with what we got going to Nevada and back and I am thrilled to report we gained 2.4 miles per gallon. I've read about others getting even better results, but I've always known that if I could keep my foot out of it I could get better mileage. This gain came despite a few fractured speed limits as we were up against a tight deadline to get our project truck on display at SEMA and then of course you're always in a hurry to get home after being on the road all week.

We did note the engine has never sounded better, but it wasn't until a few months later when our area started experiencing low negative temperatures during the winter months when I could appreciate those cold starts. Typically freezing temperatures and early mornings translate to problems for diesel trucks, but this might be what impressed me the most about the Archoil products. I've owned gas trucks that didn't start up on cold winter mornings as easily as my 6.4L Power Stroke.

In the end, you can add Diesel Tech magazine to the long list of testimonials as we're now believers in Archoil too. Improved fuel economy, smoother running engine and no issues with cold starts: these are two products we're now sold on.—Brady L. Kay, DT Editor DT

PRODUCTS	94
Application	20/20
Function	48/50
Durability	9/10
Improvement	10/10
Price	7/10

866-537-7383
www.archoil.com

Another big supporter of Archoil is Bill Hewitt from Powerstrokehelp.com whom we met up with at SEMA. To find out what he had to say about these two great products click on the video link in our digital issue.

