

IGNITION PROGRAM

Highlights

1

NAPA® Echlin® offer more than 800 Coils for 99% aftermarket-leading coverage

2

Every Ignition Coil is subjected to extensive testing and product validation

3

Popular NAPA® Echlin® OE Durability Improved Coils are available in multi-packs for a complete coil service



What's in your box?™

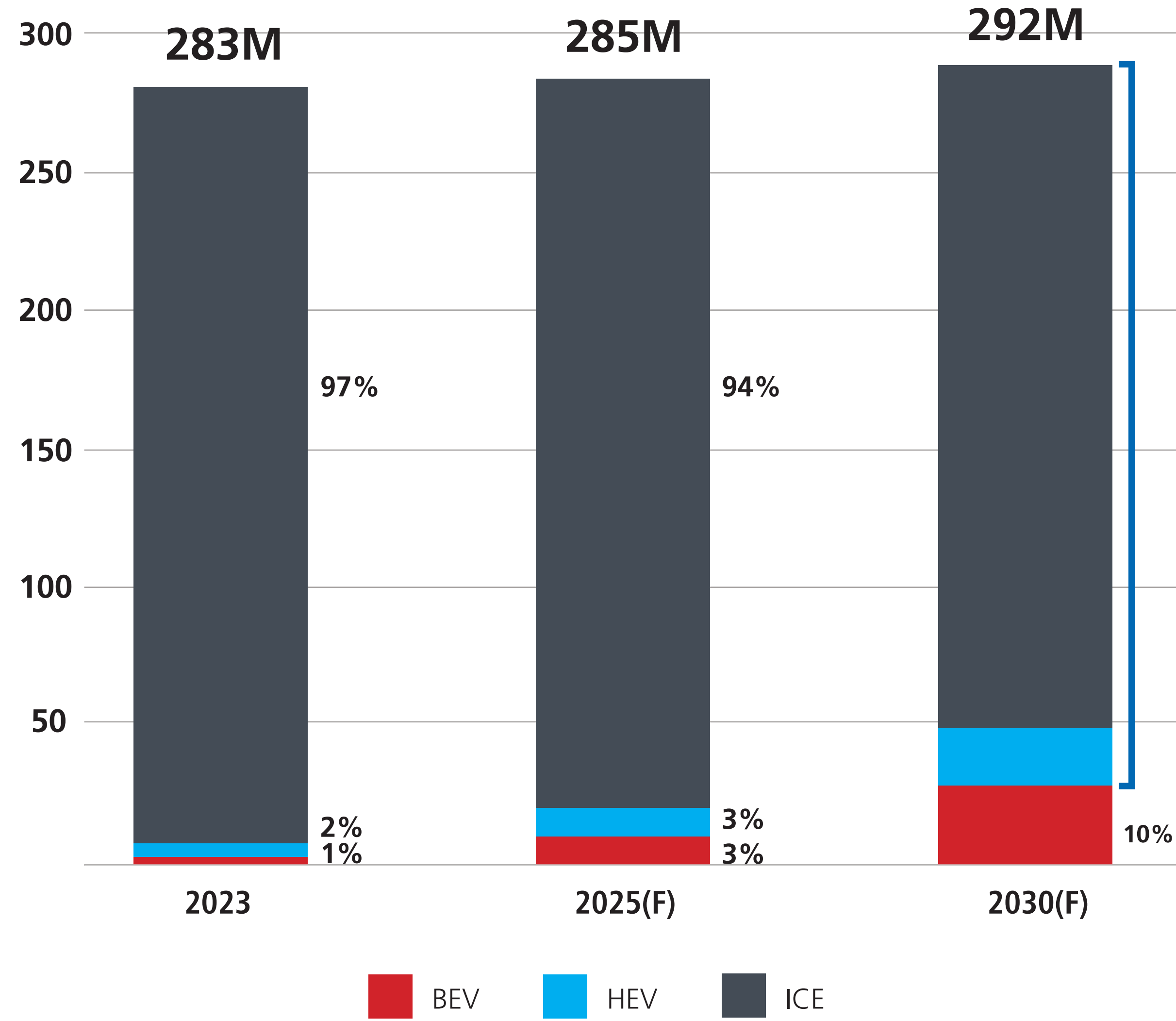


Market Trends

There are currently around 283 million vehicles on U.S. roads. In the coming years, U.S. new vehicle sales are forecasted to increase steadily. Combined with the average vehicle age of 12+ years, the car parc is expected to see growth for the foreseeable future — and almost all of them will still be equipped with ignition coils. Ignition coils will remain a strong category for decades to come.

VEHICLES IN OPERATION

Total U.S. Car Parc, Millions of Cars



By 2035, over 262M vehicles on the road (90%) are projected to still use ignition coils

S&P Global Mobility (LV Sales and Production Forecast July 2023), DOT, Strategy & analysis

Sales Opportunity

Our engineers discovered that too much energy was passing through each section of the OE coil, creating excess heat and resulting in premature coil failure. They designed a Coil with an additional bobbin section, resulting in less heat and a longer service life. The updated NAPA® Echlin® Coils outperform and outlast the OE design.

NAPA® Echlin® multi-packs make it easier for technicians to solve a known problem once and for all.

Did You Know

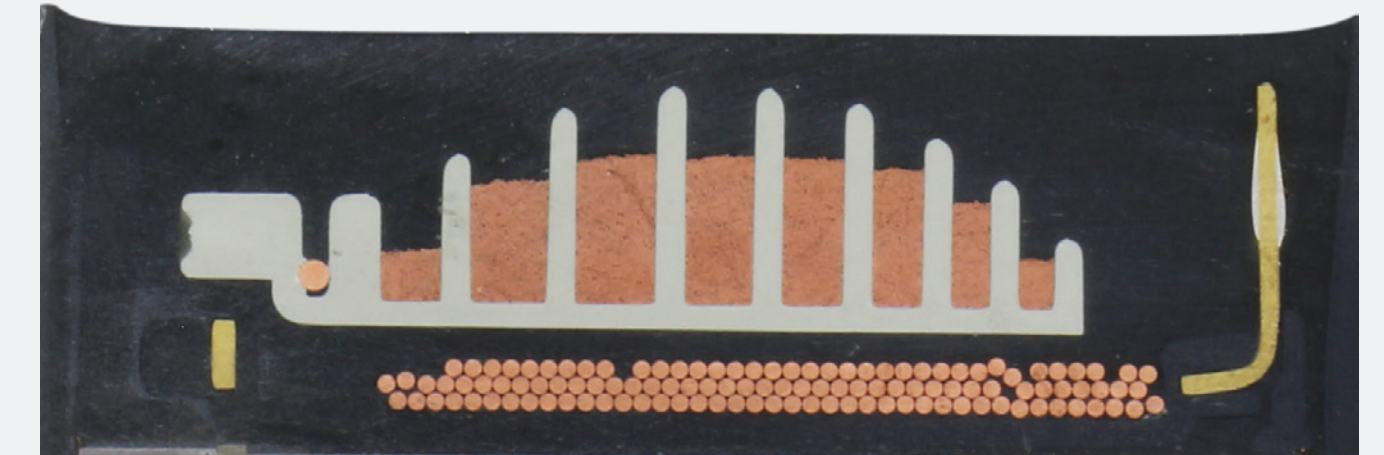
NAPA® Echlin® IC479 is also available in multi-pack as part number IC479-6MP



Problem:

Ignition coils on 2020-02 Nissan & Infiniti 3.5L V6s are susceptible to premature failure due to excessive heat

The OE Coil has 8 bobbin sections

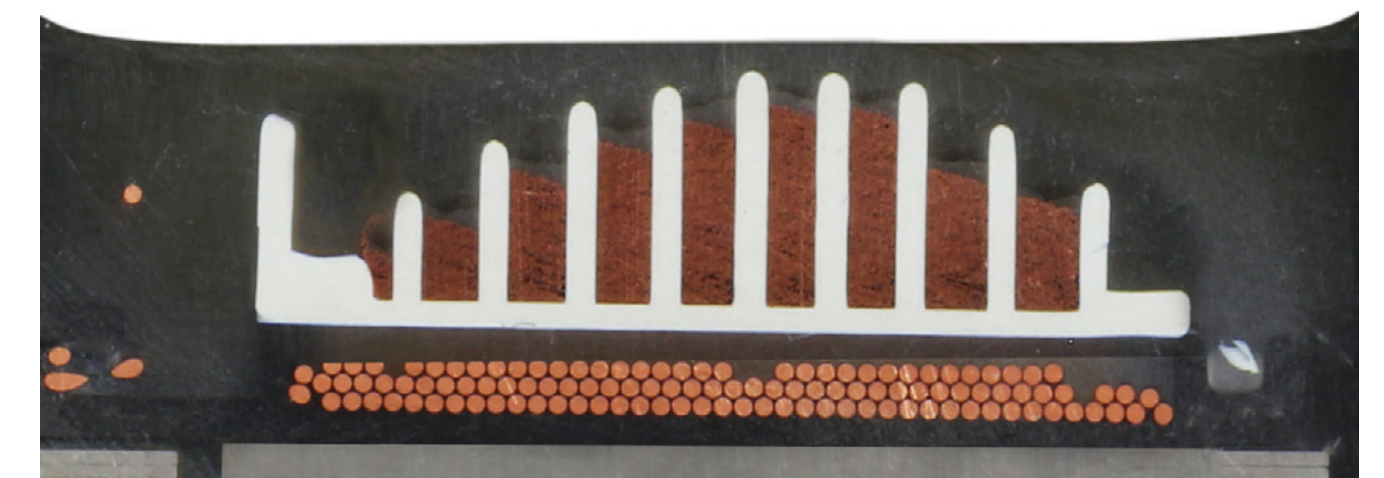


30kV needs to pass through only 8 sections, meaning nearly 4kV needs to pass through each section

Solution:

NAPA® Echlin® engineers designed a Coil that addresses OE weak points and includes additional bobbin sections, resulting in less heat produced and a longer service life

NAPA® Echlin® IC479 has 9 bobbin sections



30kV passes through 9 sections, meaning only 3.3kV passes through each section, creating less heat

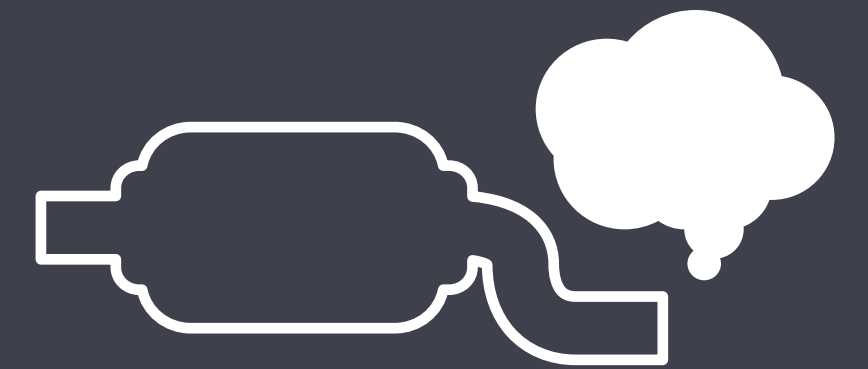
Impact on Engine Systems



Exposure to heat, oil intrusion and water intrusion are three of the leading causes of premature failure in OE coils



Incorrect spark plug gaps can cause coils to work harder and fail prematurely



An ignition-related misfire can damage the catalytic converter in a few miles or several minutes of driving if a vehicle doesn't register the faulty coil and continues to feed fuel to the cylinder

What's New

NAPA® Echlin® is committed to regularly releasing new Coils to provide the coverage you need. With high OE failure rates, technicians continue to look for reliable aftermarket alternatives, even on late-model vehicles. NAPA® Echlin® already offers over 800 Ignition Coils and is committed to regularly releasing new applications to give technicians the aftermarket solutions they are looking for.

For the most recent applications, check the online catalog at NAPAEchlin.com.



IC1030
Buick Encore GX /
Chevrolet Trailblazer
(2023-20)
VIO: 292K



IC1039
Nissan Sentra
(2023-20)
VIO: 267K



IC1031
Ford / Lincoln Trucks & SUVs
(2023-21)
VIO: 374K



Top Movers: Ignition Coils

IMPORT APPLICATIONS



IC770
BMW
Cars & SUVs
(2021-01)



IC686
Lexus / Toyota
Cars & SUVs
(2021-09)



IC629
Nissan / Infiniti
Cars, Trucks & SUVs
(2021-06)



IC479
Nissan / Infiniti
Cars, Trucks & SUVs
(2021-01)



IC655
Audi / Volkswagen
Cars & SUVs
(2019-04)

DOMESTIC APPLICATIONS



IC369
Ford
Cars, Trucks, Vans & SUVs
(2019-97)



IC751
Chrysler / Dodge / Jeep / RAM
Cars, Trucks & SUVs
(2021-11)



IC584
Chrysler / Dodge / Jeep / RAM
Cars, Trucks & SUVs
(2022-05)



IC243
Chrysler / Dodge / Jeep / RAM
Trucks & SUVs
(2008-98)



IC558
Ford
Cars, Trucks & SUVs
(2009-04)

Additional Coils and Related Parts

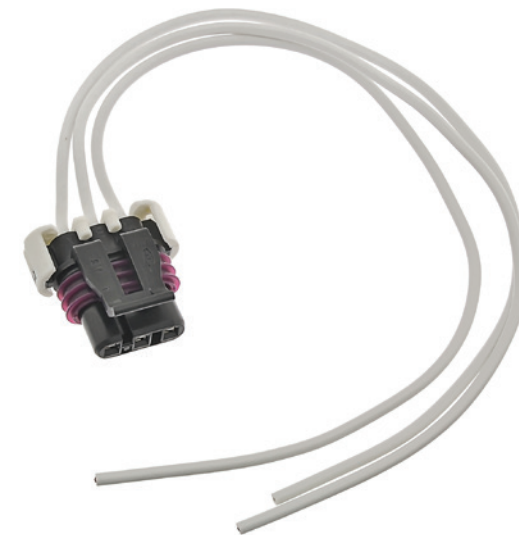
In addition to the traditional Coil-On-Plugs, NAPA® Echlin® offers an array of other high-quality Coils and components to help with ignition repairs. From unique coil designs to service kits, NAPA® Echlin® has you covered.



Coil Near Plugs (CNP)

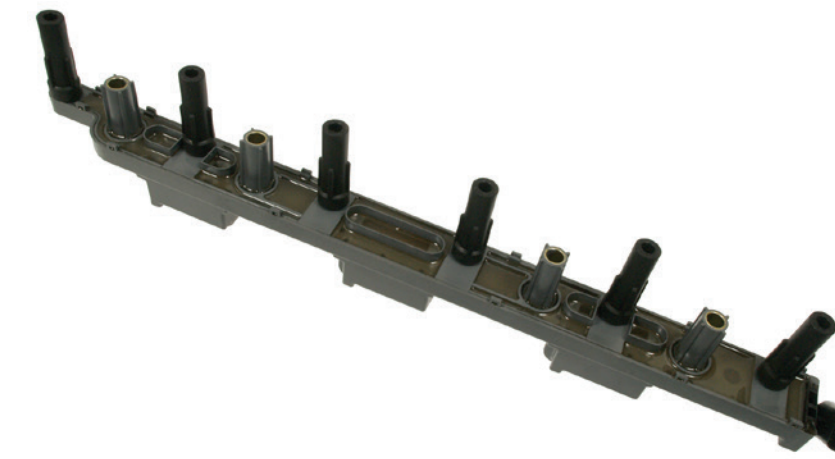
Reinforced bobbins prevent voltage flashover for extended service life

High-dielectric epoxy is injected into the case and pulled into vacuum to eliminate air pockets and prevent moisture intrusion or thermal breakdown



Ignition Coil Connectors

Utilizes high-grade materials to ensure peak conductivity and perfect connections



Cassette Coils

High-heat-resistant housing compound and coil boot withstands heat stress for durability

100% pure copper windings in the primary and secondary bobbins improve durability and provide higher resistance to internal shorts and dielectric breakdown



Coil-On-Boot Service Kits

Multiple-piece design featuring a phenolic tube and silicone tip

Includes spring and resistor



Coil Packs

Housing made from thermoplastic compounds to withstand heat stress

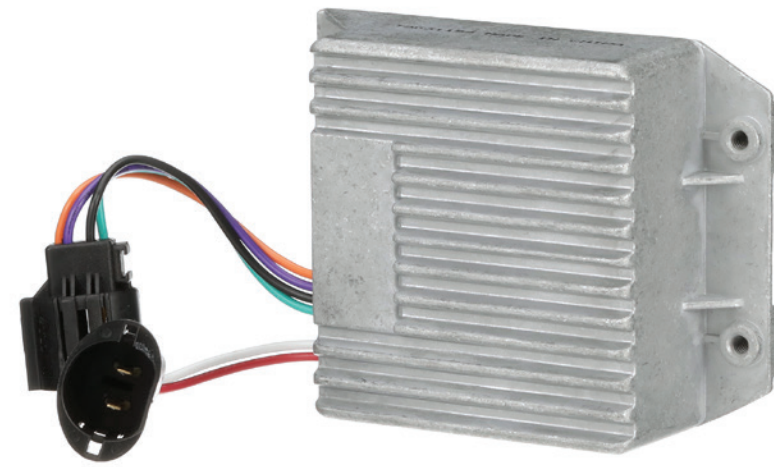
Full E-Lam core of silicon steel and solid brass high-voltage terminals protects against corrosion

Other Ignition Systems

In addition to newer-style Coils, NAPA® Echlin® offers multiple ignition components for classic vehicles. These components help restore performance on older, higher-mileage vehicles.

Did You Know

Older ignition systems are typically comprised of primary (module and coil) and secondary (cap, rotor, wires, plugs) components. If a primary component has failed, it is typically due to high resistance in the secondary components. Newer coil-on-plug assemblies include the primary and secondary in one piece.



Ignition Modules

NAPA® Echlin® Ignition Modules use top-of-the-line technology to ensure perfect timing every time

Matches the OEM part and ensures better connections, greater dependability, and longer life despite being subjected to intense vibrations and the tough operating environment of the engine

300+ SKUs



Distributor Assemblies

High-dielectric-strength cap ensures accurate energy transfer and spark timing, while stainless steel screws protect against corrosion

Improved gear design for enhanced performance in high-torque applications

Available for GM 4.3L V6 and 5.0/5.7L V8 applications



Spark Plug Wire Sets

Designed, built, and tested to meet or exceed tough international IATF 16949 quality standards

NAPA® Belden® Spark Plug Wire Sets feature matching boots, a wire core and jacket, and extras like clips, trays, looms and numbered leads

Available for domestic and import vehicles

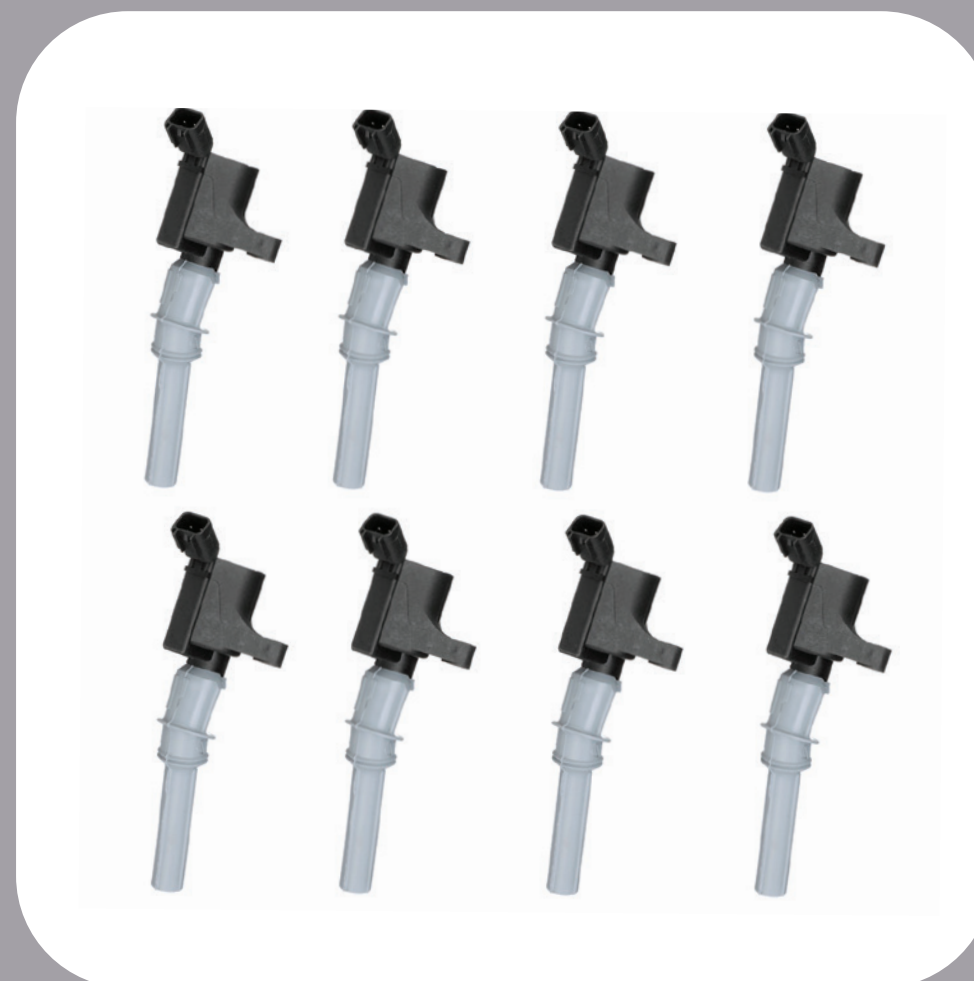
Problem Solving Kits

Many of the most popular NAPA® Echlin® OE Durability Improved Coils are now available in multi-packs. Specifically designed to eliminate OE failure points, our premium Coils are available for import and domestic vehicles offering a complete repair solution.

A total of 30 NAPA® Echlin® Coil Multi-Pack Kits are currently available with more to come.



IC369-8MP
Ford
Cars, Trucks & SUVs
(2019-97)



IC567-6MP
Toyota / Lexus
Cars, Trucks & SUVs
(2022-05)



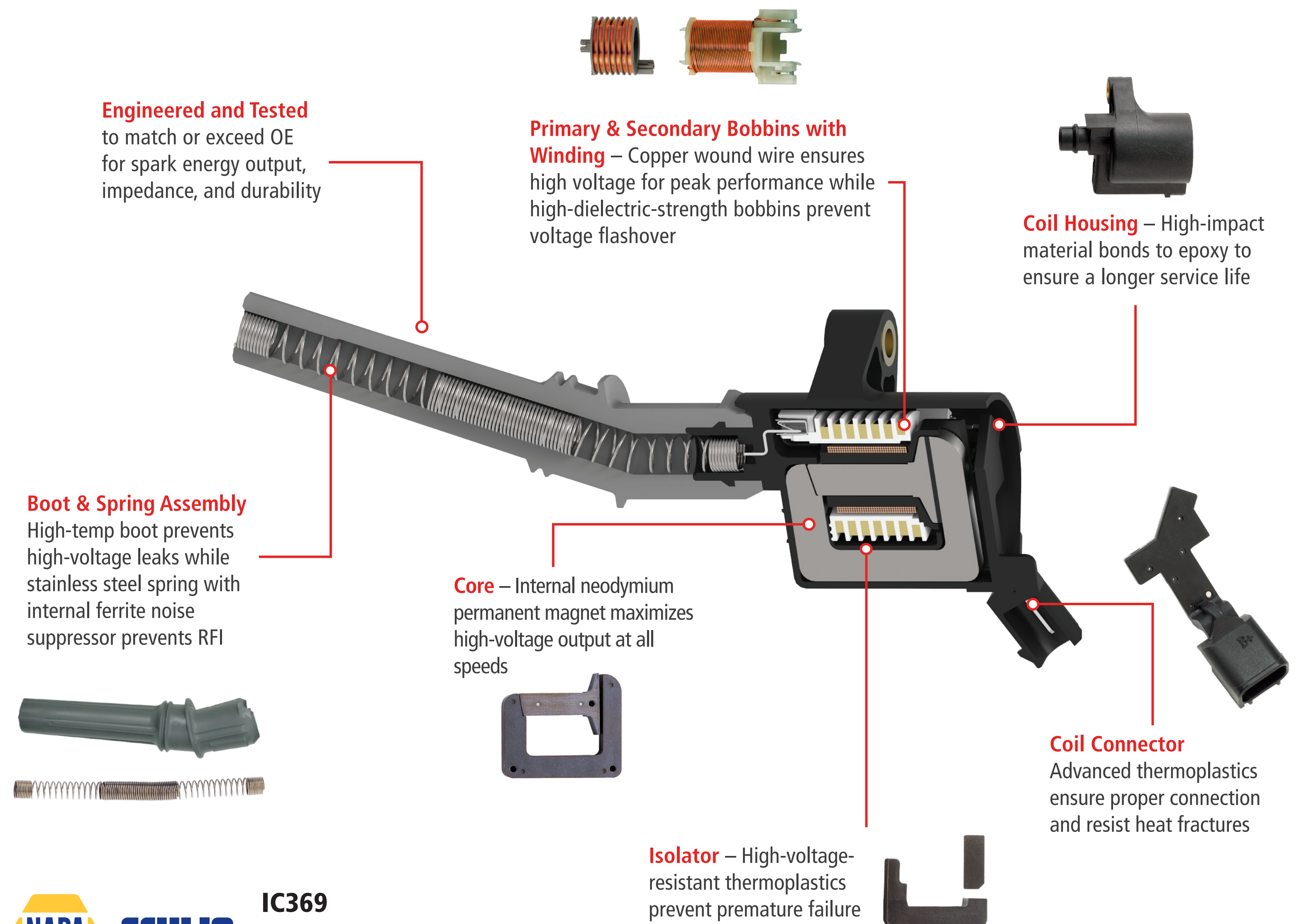
IC243-8MP
Chrysler / Dodge / Jeep
Trucks & SUVs
(2008-99)



Engineering Improvements

Premium parts start with premium components. Each NAPA® Echlin® Ignition Coil is engineered with features to ensure that our Coils will perform under the most extreme conditions.

Heat is a leading cause of coil failure. The NAPA® Echlin® IC369 features multiple design improvements to improve insulation and reduce operating temperatures. This means better-performing and longer-lasting Ignition Coils.



ECHLIN

IC369

Ford / Lincoln (2019-97)
6.9M VIO



ECHLIN

Ignition Coils

NAPAEchlin.com

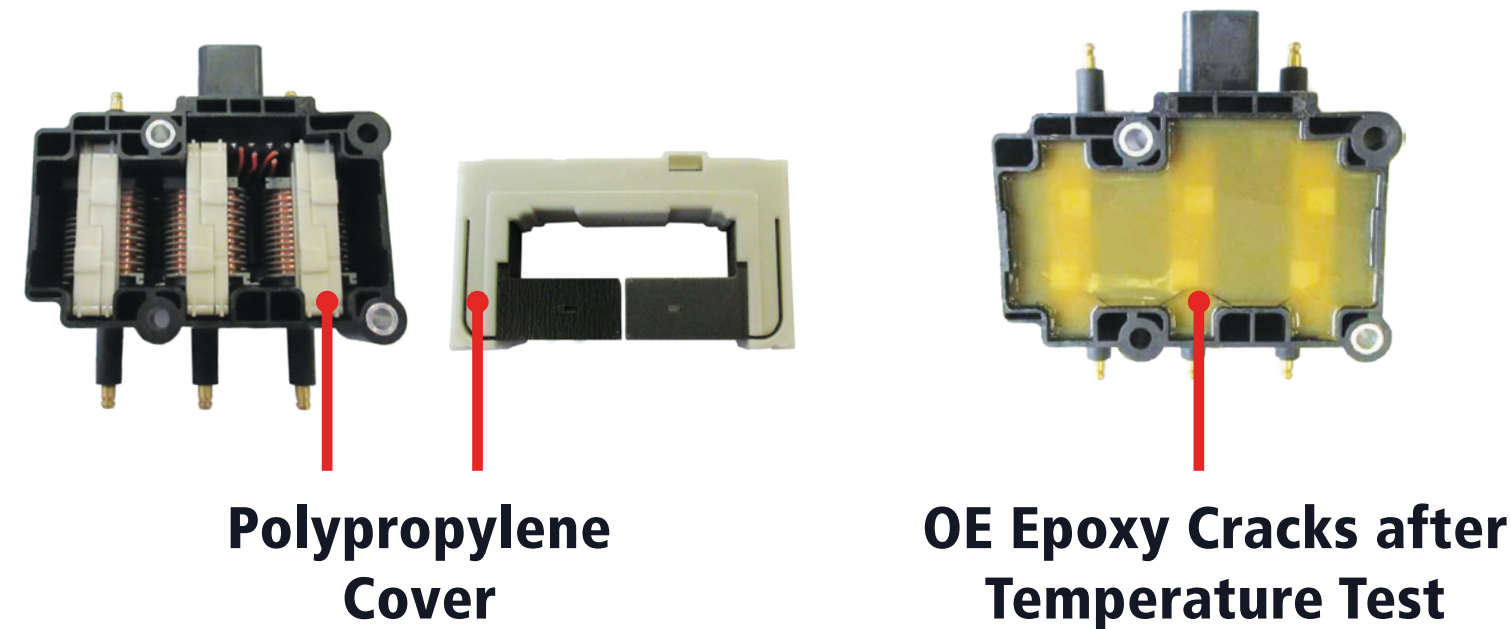
Engineering Improvements

In addition to an inability to manage high temperatures, moisture intrusion is another common reason that OE coils fail. Our engineers identify OE weak points and design solutions so that our premium NAPA® Echlin® Coils offer improved durability over the OE design.

Engineering a Longer-Lasting Coil

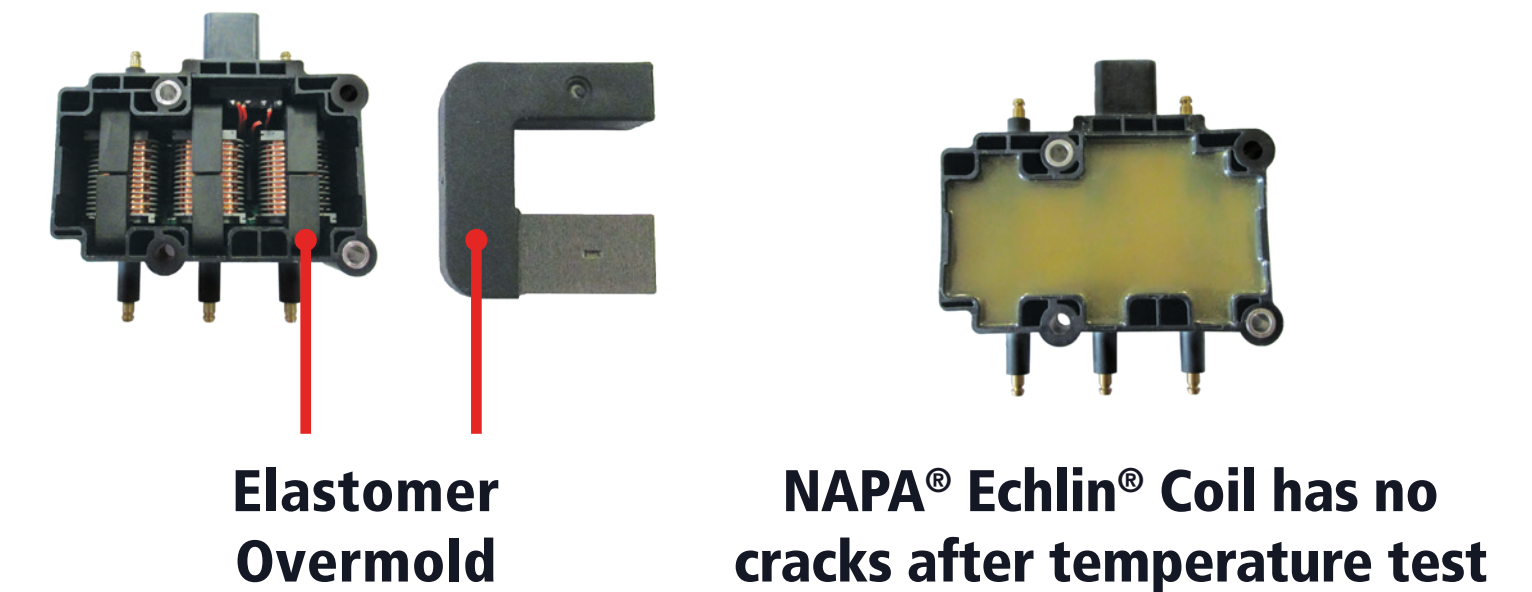
OE Problem:

Higher temperatures cause the epoxy to crack, allowing moisture in and causing the OE coil to fail



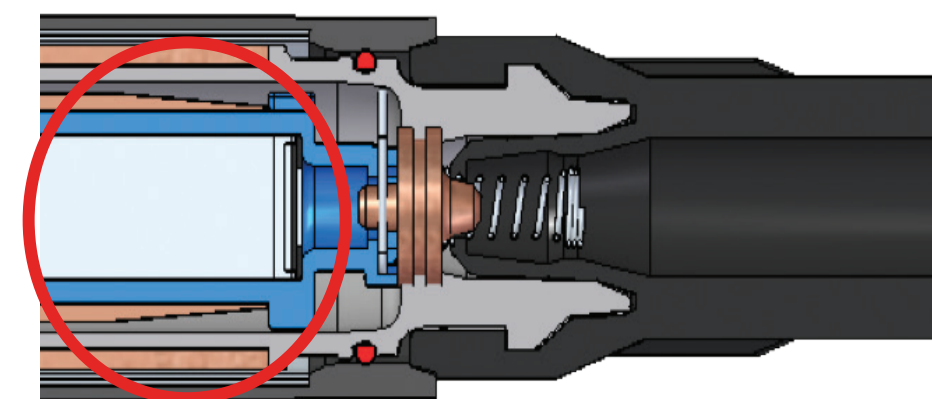
NAPA® ECHLIN® Solution:

NAPA® Echlin's epoxy stays intact, keeping moisture out and allowing the Coil to perform as designed



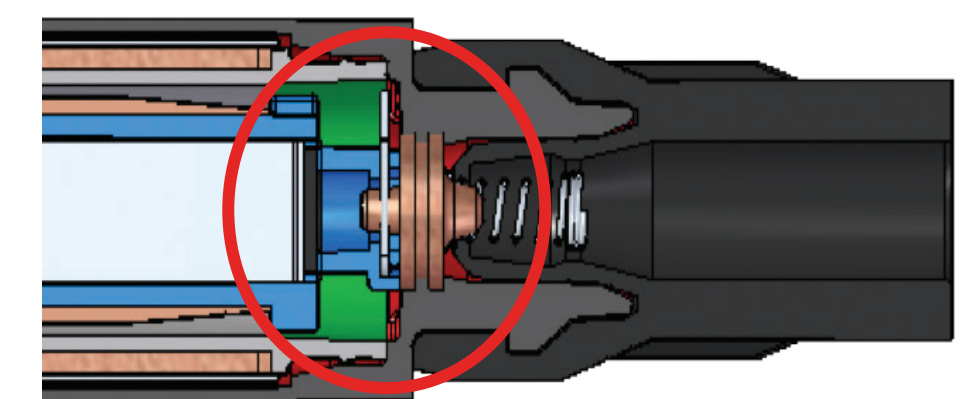
OE Problem:

Moisture intrusion causes the OE coil to prematurely fail when the O-ring breaks down



NAPA® ECHLIN® Solution:

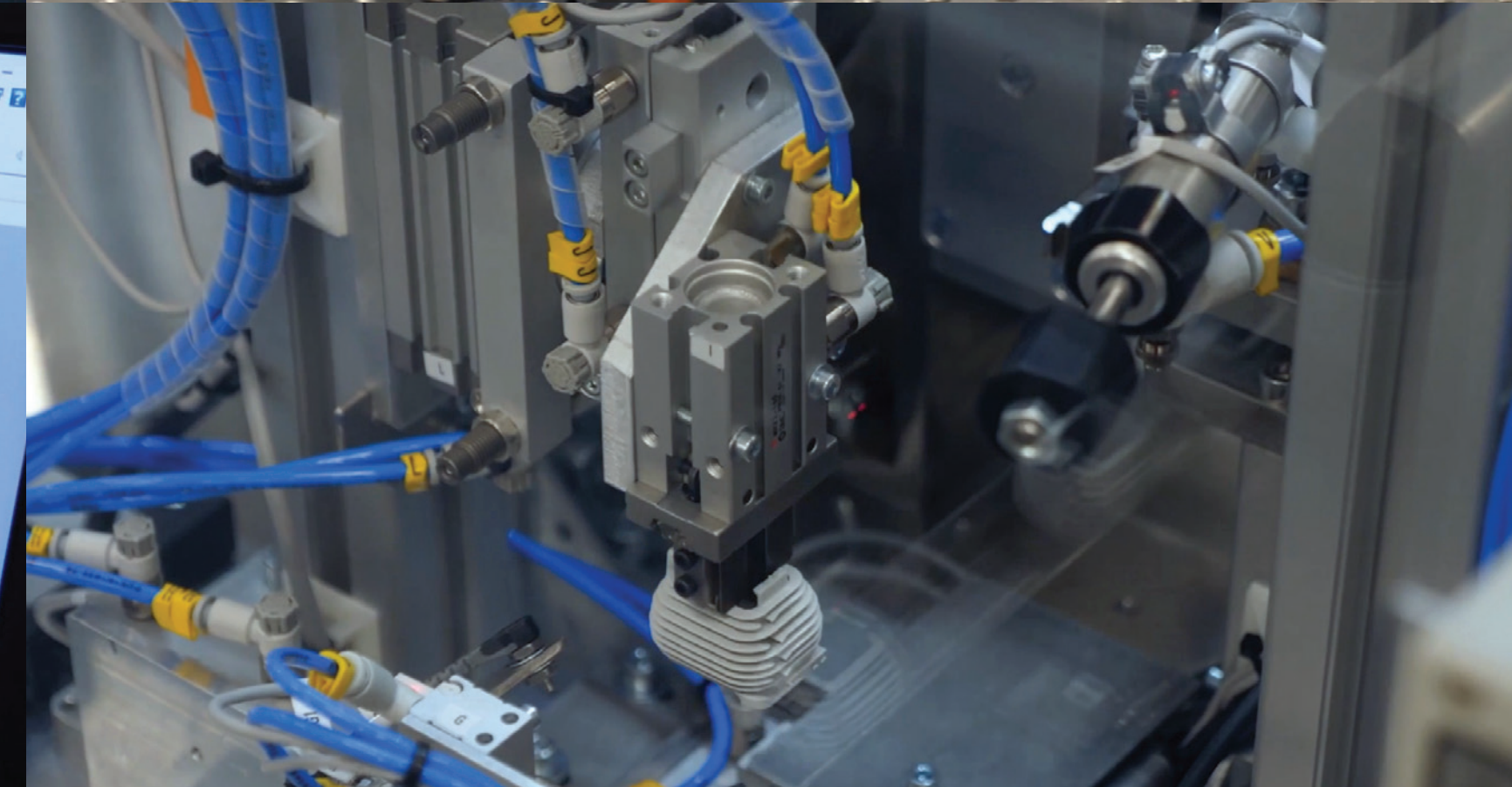
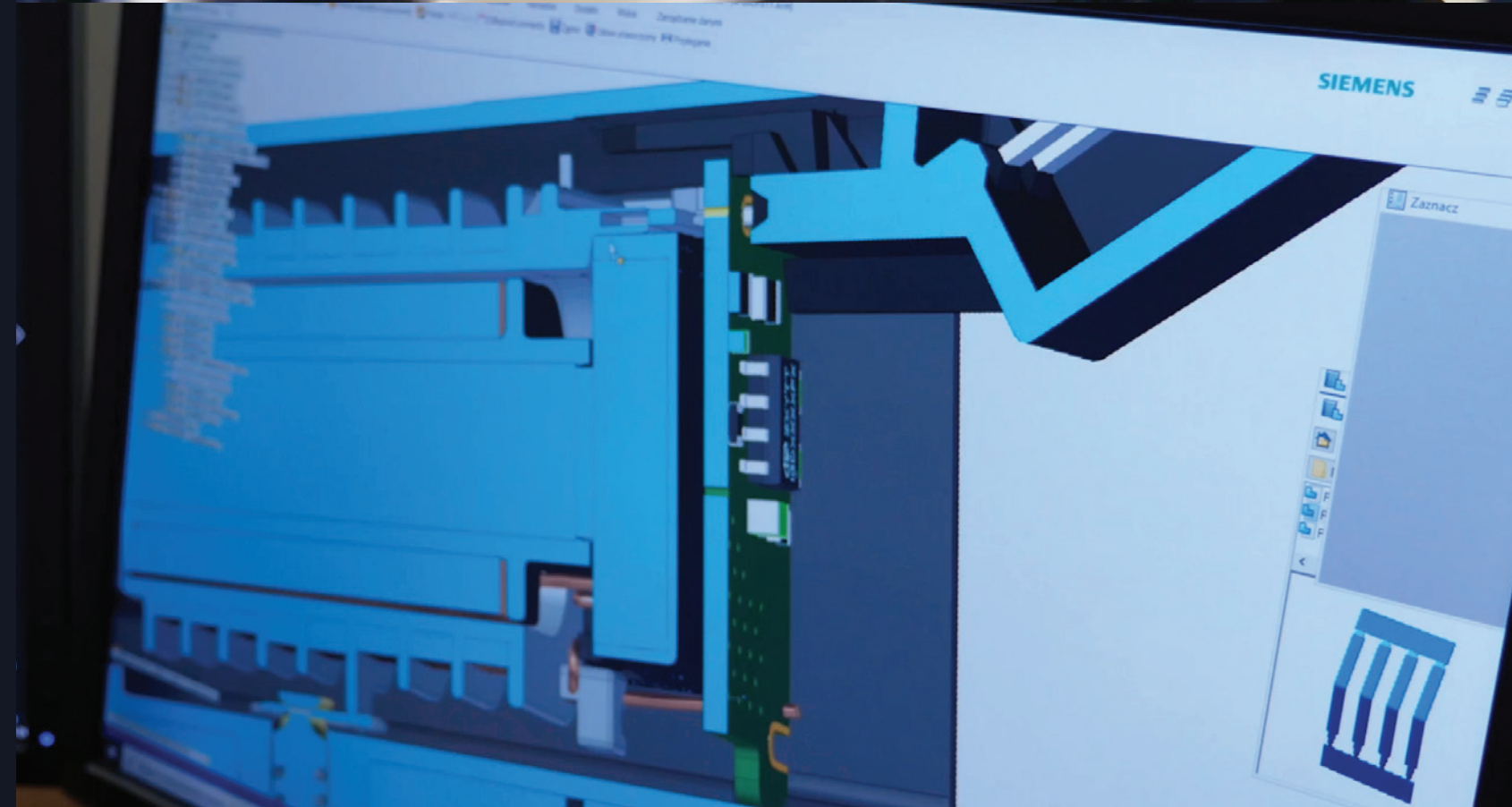
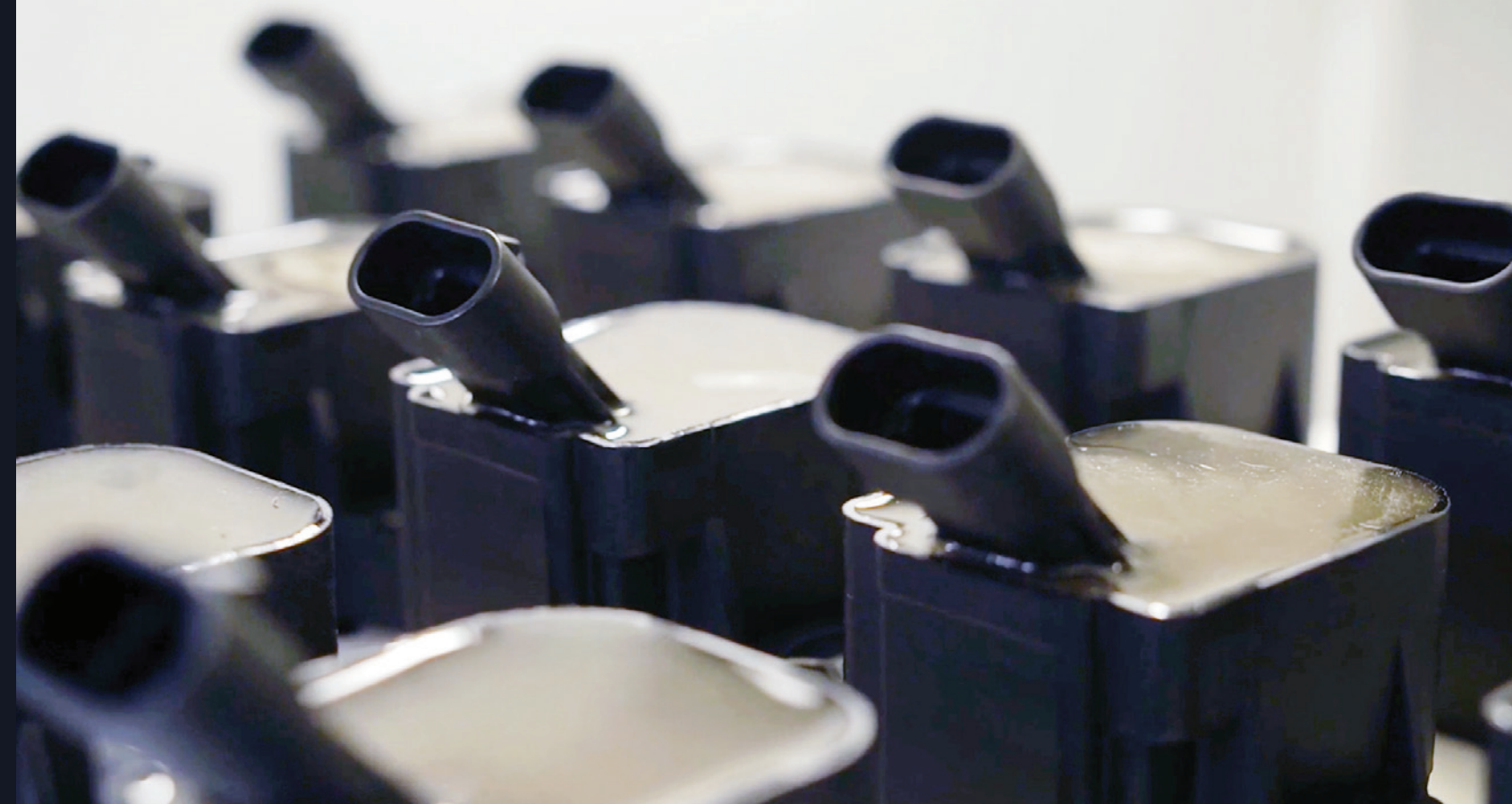
We engineered an improved, one-piece design that eliminates the need for an O-ring and removes the chance of moisture intrusion



Manufacturing

NAPA® Echlin® engineers and manufactures high-quality Ignition Coils and components at our state-of-the-art facility in Bialystok, Poland.

Highlights of the IATF 16949 and ISO 9001-certified facility include lean manufacturing methods and vertically integrated manufacturing processes that include multi-spindle winding, injection molding, potting, curing, and welding.

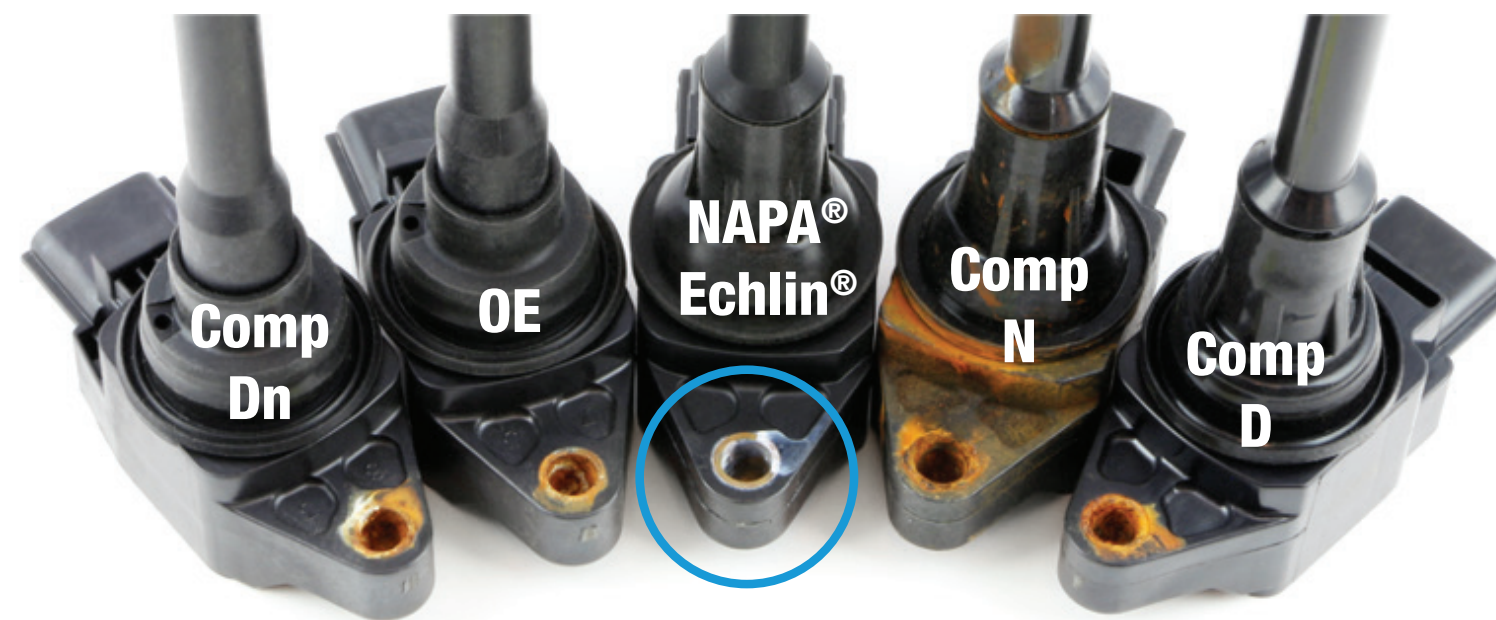


Testing and Validation

To ensure quality, all products manufactured at the SMP Poland facility undergo a full spectrum of measurement and life testing in addition to a full range of environmental analysis that includes thermal shock, thermal cycling, salt spray, vibration, and storage tests.

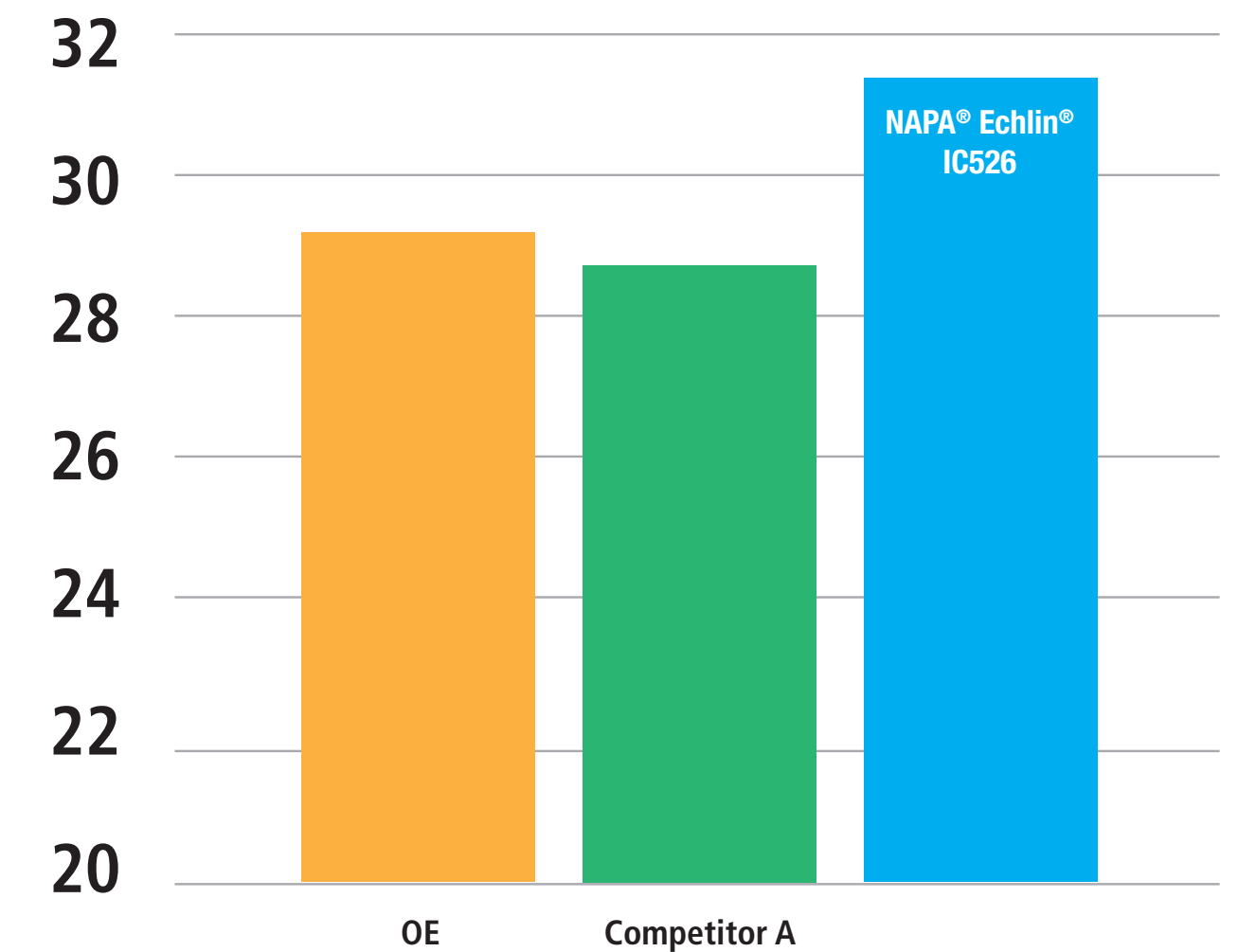
The result is a line of premium ignition components that perform flawlessly and stand up to real-life conditions.

Salt Spray Test



NAPA® Echlin® IC629 has an upgraded brass bushing which outperformed the OE and competitors in a 200-hour salt spray test.

Spark Energy [mJ]



NAPA® Echlin® IC526 has 7% higher spark energy than OE.



NAPA® Echlin® OE Durability Improved Ignition Coils are tested and validated to be the highest-quality Coils available on the market.

NAPA® Echlin® Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, NAPA® Echlin® Pro Trainers are experts in Ignition System technology.

Here's what they say to look out for during an ignition coil install.



When replacing a faulty ignition coil, make sure that the driver in the PCM has not been damaged by a shorted coil — This is especially prevalent in Ford 2-wire coils



If an intake plenum needs to be removed to access an ignition coil, do your customer a favor and replace all the ignition coils on that bank at the same time



When replacing an ignition coil, replace all the secondary ignition components (plugs, boots, wires) as well

NAPA® Echlin® Professional Training

**Award-Winning In-Person, Live
Virtual, and Online Learning**

NAPA® Echlin® Pro Training delivers accredited classes that educate technicians in the latest automotive repair technologies, and techs can earn CEU credits.

An extension of NAPA® Echlin® training, our extensive YouTube video library has over 500 technical and installation videos.



Available Classes

Diagnosing Ignition Problems
Automotive Ignition Fundamentals
Misfire Diagnostics 101
Misfire Diagnostics 102
Misfire Troubleshooting Tips
Essential Driveability Diagnostic Skills
Diagnosing Low Power



Available Classes

Misfire Diagnosis
Lab Scope Power User
Ignition System and Cam/Crank Synchronization
Powertrain Electronics
Advanced Drivability Diagnostics
Unleash the Power of Your Scan Tool



For information on replacing ignition coils, search “Coil” on the **NAPA® Echlin®** YouTube channel