

Allied  
Nippon



| **WORLD CLASS  
BRAKING**



INTRODUCING THE **ALLIED NIPPON BRAKING RANGE**



## GLOBAL BRAKING SPECIALISTS

Braking is in Allied Nippon's DNA. Since its inception back in 1982 the brand has specialised in friction and our products support a plethora of OE, private label and aftermarket customers around the globe.

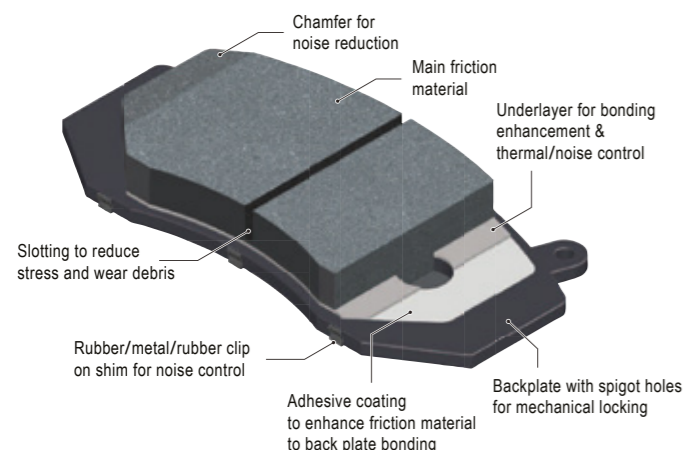
The approach is simple - quality materials, quality processes and quality manufacturing all in pursuit of world class braking.



## BRAKE PADS

When you buy Allied Nippon you're buying high quality brake pads manufactured by our own production facilities. Every pad is backed by over 30 years of experience working with some of the biggest names in the automotive industry.

Allied Nippon brake pads deliver trusted performance to a global network of OE, private label and aftermarket clients with millions of sets sold worldwide each year.



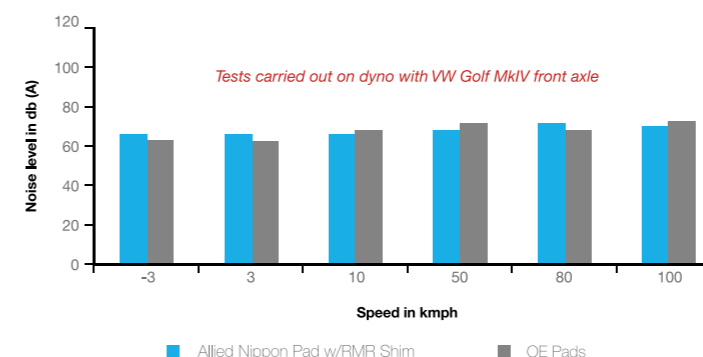
## DESIGNED & MANUFACTURED FOR QUALITY

Working with a broad range of clients, including vehicle manufacturers, has helped us hone the design and manufacture of Allied Nippon brake pads to a truly exceptional standard. With complete control of development, raw materials and the manufacturing process, Allied Nippon guarantees superior performance and consistency from each and every pad that rolls off the production line.

## COMPOUND

Allied Nippon NAM112A friction compound delivers superior stopping power with every push of the pedal. The excellent wear properties of this material ensures strength and durability for a long service life and, as the below graph illustrates, the NAM112A material formulation also delivers low noise properties across a range of speeds, temperatures and pressures.

Average Noise Comparison of Allied Nippon Pads vs OE Pads at Varying Speeds



RUBBER COATING  
METAL BASE  
RUBBER COATING (textured)



## BONDING

Our friction compound is mixed to precise tolerances then bonded to high-strength backing plates. Specialised bonding materials are carefully selected to adhere compound to back-plate and ensure durability, strength and shear force resistance.

## RMR BACKING SHIM

To complement the precisely crafted pad and deliver further noise enhancements, Allied Nippon fits OE-type backing shims to its most popular aftermarket references.

Our multi-layer shims are codenamed RMR due to their Rubber-Metal-Rubber construction and designed to reduce audible vibrations within the caliper.

"We firmly believe in the quality of an Allied Nippon pad but, perhaps more importantly, we are confident in the quality on offer from every single pad we manufacture."

Making one set of high-quality pads is relatively simple but making many millions of sets to the same quality standards is what sets the Allied Nippon product apart.

Product consistency is the key advantage of our manufacturing and this means Allied Nippon customers can supply and fit our product with absolute confidence and peace of mind."

Director of Braking Product Development  
Dr Keith Ellis





ONE OF THE BIGGEST  
'E' CERTIFIED BRAKE PAD  
RANGES IN THE WORLD



## 'E' CERTIFIED PERFORMANCE



All Allied Nippon brake pads are 'E' certified under ECE R90 regulations, in fact, we currently offer one of the most comprehensive ECE R90 approved ranges available within the European aftermarket.

ECE R90 regulations are an EU directive that governs brake pad design, construction and performance, stipulating that a pad must perform to within +/- 15% of the original part in a series of stringent tests in order to comply. Buying R90 approved brake pads, such as Allied Nippon, is the only way to ensure that you are supplying safe, reliable products to your customers.

### TESTING SUMMARY

A range of **OE equivalence performance tests** stipulated under ECE R90 Regulation 13



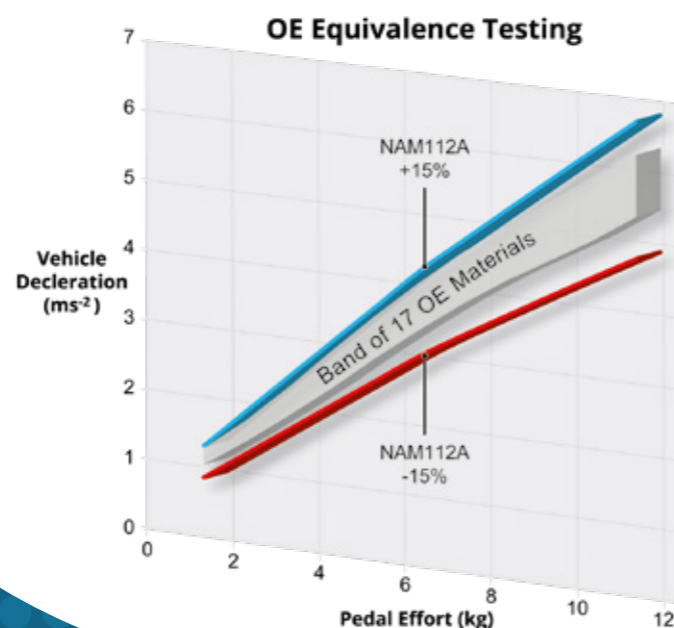
**Speed sensitivity tests** put our pads through their paces at varying speeds and pressures



**Hot shear testing at 300°C** ensures a super-strength bond between friction material and back-plate



Pads are **rigorously wear tested** at varying temperatures up to 500°C



## SUPER R90 TESTING

ECE R90 compliance is vital for all credible braking brands but for many this is where the testing stops. For Allied Nippon however, testing goes far beyond the minimum requirements of R90 regulations with a more extensive testing programme – we call this 'super R90' testing.



"We push Allied Nippon brake pads beyond R90 minimums with additional dyno and on-vehicle tests. This includes hot-shear testing, which replicates the R90 cold shear test at 300°C; wear testing, which examines durability across a range of temperatures up to 500°C; and noise testing at a range of speeds and pressures..."

...Putting our pads through this comprehensive test procedure helps elevate overall quality and ensures that Allied Nippon pads are equipped to deal with the rigours of real-world braking conditions."

Director of Braking Product Development  
-Dr Keith Ellis

## CONTINUOUS DEVELOPMENT

One of the Allied Nippon brand's underlying strengths is undoubtedly its development programme. We aim to keep our brake pad range on the pulse of the market and to consistently meet the needs of our customers. This approach ensures a continuous flow of new to range part numbers into our simply vast range of brake pads. In fact, Allied Nippon covers over 95% of the European, Japanese and Korean car parc, whilst also offering a solution for light commercial vehicles, trucks (CV), buses and even trailers.

## COPPER-FREE

Following the outcome of recent studies in the United States, and subsequent regulations limiting the use of copper in brake pads in both California and Washington State, Allied Nippon took the significant step of removing copper from its whole brake pad range. This change demonstrates an environmentally responsible ethos and proactive approach to product development.





## COATED BRAKE DISCS

Our comprehensive range of Allied Nippon brake pads is now complemented by an equally impressive range of coated brake discs. Developed exclusively for the European aftermarket, this new range harnesses the experience and expertise of Allied Nippon's product development team and applies our braking DNA within a whole new product category.

The relationship between pad and disc is paramount for a vehicle to come to a safe, efficient stop and what better way to optimise this efficiency than by pairing an Allied Nippon brake pad with a new Allied Nippon coated brake disc.

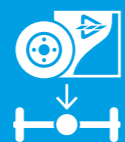
## FEATURES & BENEFITS

The new range of Allied Nippon coated brake discs is the result of meticulous development, exhaustive testing and precision manufacturing.

Perfectly tailored to the European passenger car and light commercial vehicle market, Allied Nippon coated brake discs serve up an array of benefits:



The perfect blend of material and process is harnessed to deliver **superior stopping power and impressive durability**



Advanced formulation anti-corrosion coating means **no cleaning and degreasing** and a seamless transition from box-to-axle without wasted time or labour



Protective coating also delivers a **premium, long-lasting appearance** making Allied Nippon coated brake discs the perfect complement to the modern alloy wheel



**Comprehensive coverage** of the European vehicle parc means there's an Allied Nippon coated brake disc for nearly every vehicle that rolls into the garage



**Accelerated product development** keeps the Allied Nippon product range in line with the needs of the market



**TecAlliance 'A' rated** cataloguing makes it quick and easy to find the right Allied Nippon coated brake disc



**TecAlliance**  
Certified Data Supplier

## CREATING THE PERFECT COATED BRAKE DISC



### MARKET ANALYSIS

Detailed market analysis identifies a product requirement and a new disc is commissioned for development.



### MATERIAL SELECTION

Allied Nippon insists on materials with the optimum structure, chemical composition, hardness and tensile strength to deliver braking performance. Every batch of raw material is tested to maintain these standards.



### R90 CERTIFICATION

Each Allied Nippon part number will be tested and R90 approved as ECE regulations dictate.



### COATING APPLICATION

With a batch of perfect discs created each is applied with an advanced formulation anti-corrosion coating to deliver rust protection and premium aesthetics.



### PREMIUM PACKAGING

The final step of the production process sees each disc wrapped with a branded poly bag before being packaged inside a premium and distinctive Allied Nippon box.



### READY FOR LAUNCH

These world class brake discs are now ready for shipment.



### PRECISE SPECIFICATION

Allied Nippon development teams analyse the vehicle requirements and formulate a precise product specification.



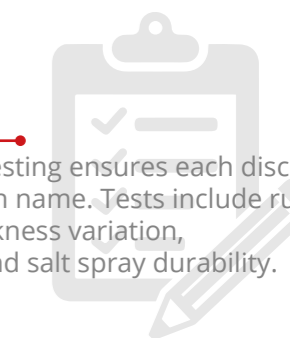
### PRODUCT PROTOTYPING

Prototype discs are manufactured and tested for specification compliance.



### AUTOMATED PRODUCTION

State-of-the-art CNC milling machines are employed to manufacture brake discs with staggering levels of precision and consistency. Manufacturing can achieve tolerances of +/- 0.1mm, which is comparable to the thickness of a human hair.



### QUALITY CONTROL

Extensive quality control testing ensures each disc is worthy of the Allied Nippon name. Tests include run out, dynamic balance, thickness variation, specification conformity and salt spray durability.



### DATA SUPPORT

Associated data including vehicle application and product specification published to TecAlliance and MAM AutoCat.



**TecAlliance**

Certified Data Supplier

**Allied**  
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