### HIGHLIGHTS 2019



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**RACING BRAKE PRODUCTS** 

PADS · DISCS · FLUID





#### Quality and Performance

#### MAXIMUM PERFORMANCE

We are proud of the performances of our products and are the absolute benchmark in many areas. For us performance means coordination of the product characteristics friction level, fade resistance, disc wear and modulation.

#### SAFETY

Safety is our top priority. Early in the development of our products we set absolute priorities. For example, the brass studs that are welded to the base plate provide a much stronger anchoring of the friction material to the base plate – even under the most extreme conditions.

#### TEST & INNOVATION

Our products are constantly subjected to the most challenging real world test – not only to guarantee consistent performance and durability, but also to continuously refine and develop our products in lab testing, we use our computer-assisted systems to duplicate the toughest tests on different race courses all over the world.

#### **OE COMPETENCE**

Our efficiency is also documented by numerous original equipment partnerships. Besides, manufacturers like Aston Martin and Mazda rely on our performances and reliability.



#### 100 % QUALITY

PAGID

FLUID 626

PAGID

ING BRAKE PADS

RSI

All PAGID Racing products are produced using the most modern technical procedures. Our uncompromising production requirements provide consistent quality at the highest level.

#### **TRUST & SUCCESS**

For decades our worldwide partners and teams have trusted our products and every year have been rewarded with numerous victories and championships. There have been some races where more than half the participants have competed using our products. Performance creates trust!

#### **BEDDING IN SERVICE**

RS

Our racing brake pads and discs are available "ready to race", perfectly bedded-in on our dedicated computerized system.

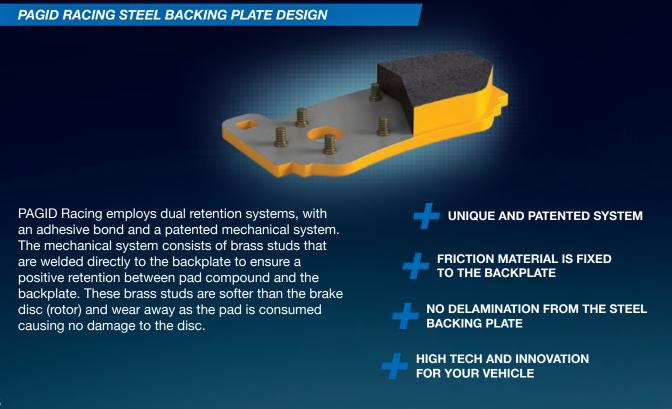
RSH

#### **Technical Information**



PAGID Racing compounds have a very high content of non-ferrous (ceramic) materials. The difference to competitor's metallic compounds is the superior thermal insulation and higher heat resistance combined with low heat conductivity, reducing heat transfer to the caliper (up to a massive 60 °C) preventing boiling of the fluid.

All PAGID Racing compounds are designed to minimize wear of the pad-rotor system, while maintaining optimum bite, brake modulation and pedal feel. All friction compounds meet or surpass all current ecological standards of the automotive industry.







#### BEDDING

#### WHY BEDDING?

To align the pad surface with the brake disc (rotor) surface and ensure full contact.

To transfer a layer of friction material onto the brake disc (rotor) faces to achieve maximum performance. To burn out the volatile elements in the friction compound in order to have the initial (green) fade occur during bedding and not during the race.

If pads are not bedded properly according to the above mentioned sequence, the brake system will not achieve its maximum friction performance, wear behavior and pedal feel. Improper bedding can also lead to judder and vibration. Unlike discs, pads do not require cooling down post-bedding for optimal performance/longevity.

#### RECOMMENDED ON-VEHICLE BEDDING IN PROCEDURE

Breaking-in

Creating a perfect contact-pattern between rotor and brake pad surface

10 stops with low pressure and low temperature from 150 km/h (90 MPH) to approximately 80 km/h (50 MPH).

Distance between each brake stop approximately 600 – 800 meters (600 to 800 yards).



Warm up in order to initiate some core heat in the whole brake system

A sequence of 5 stops with medium to high pressure from 180 km/h (112 MPH) to approximately 60 km/h (37 MPH) with maximum acceleration between the stops.

After the last stop cool down for 3 minutes with the speed preferably not higher than 100 km/h (62 MPH).

#### Recovery Stops

3 to 5 stops with low pressure from 150 km/h (90 MPH) to approximately 80 km/h (50 MPH).

Distance between each brake stop approximately 600 – 800 meters (600 to 800 yards).

#### BEDDING IN SERVICE – USAGE OF PRE-BEDDED PARTS

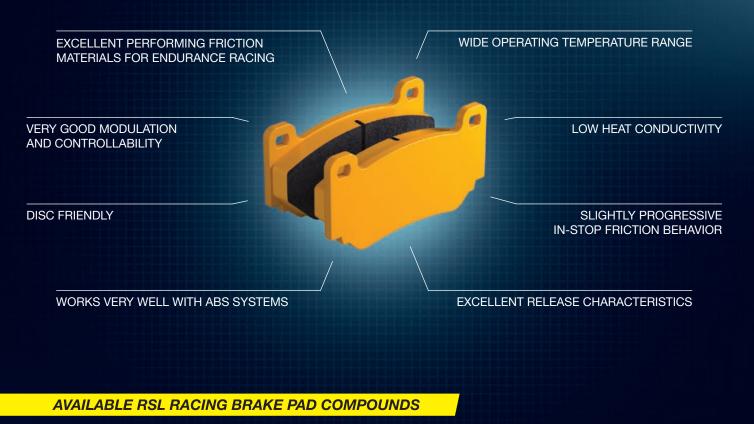
GET THE MAXIMUM OUT OF YOUR BRAKE WITH A MINIMUM AMOUNT OF TIME WHILE SAVING BARE MONEY – GET PRE-BEDDED PARTS!

Our racing brake pads are also available pre-bedded "ready to race". Further information can be also found on page 40. Please ask your local dealer for our brake pads pre-bedded. Using pre-bedded parts is always recommended, as they are run in a computer-controlled environment and can therefore deliver perfect performance for a very reasonable cost. Keep in mind every kilometer driving a race car is expensive!





ENDURANCE RACING BRAKE PADS

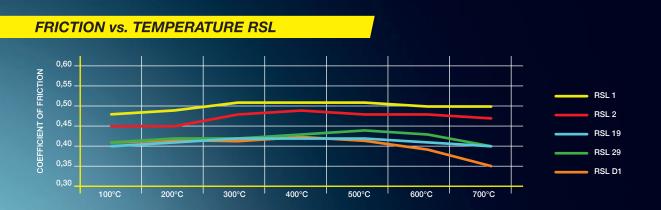


RSL 1	RSL 2	RSL 19	RSL 29	RSL D1

The available specifications can be found in the product search on our website: www.pagidracing.com. PAGID Racing RSL compounds are developed to comply with the latest requirements in endurance racing and meet or surpass all current ecological standards of the automotive industry.

#### **BEDDING IN SERVICE**

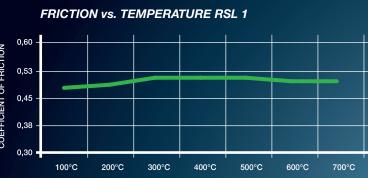
You can also acquire our Racing Brake Pads 'ready to race', perfectly bedded in on our computer system. Further information can also be found on page 8. Please ask your dealer about our 'Bedding In Service'.











Used in GT cars, Touring cars and prototype endurance racing. Due to the high friction and good modulation, often used in sprint races as well.

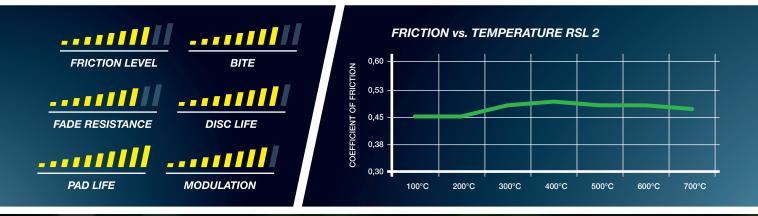
#### **DESCRIPTION**

S 912

RSL 1 is a low metallic resin bonded material containing steel and aramid fibers with high heat resistance. It maintains a constant friction level over a wide range of temperatures. Its low wear rate and disc friendliness make this material appropriate for endurance races.



RSL2 MEDIUM HIGH FRICTION COEFFICIENT



#### **APPLICATION RANGE**

GT cars, Touring cars and prototype endurance racing. Due to excellent modulation <u>characteristics often also</u> used in sprint races.

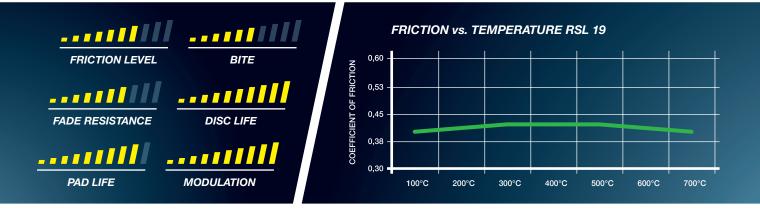
#### DESCRIPTION

RSL 2 is based on the RSL 1 compound but has been further improved in terms of pad and disc life as well as friction stability vs. temperature. It is a low metallic resin bonded material containing steel and aramid fibers. Furthermore, it maintains a constant friction level over a wide range of temperatures.

DEKR







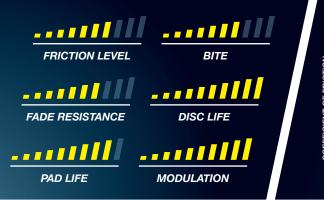
Rear axle usage in combination with RSL 1 and RSL 2 on the front axle in heavier cars (GT3/GTE). Front axle usage for lighter GT and Touring cars.

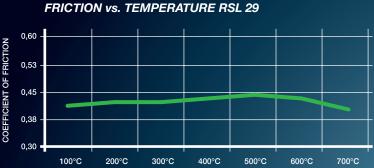
#### DESCRIPTION

RSL 19 is a low metallic resin bonded material containing steel and aramid fibers. It maintains a constant friction level across a broad range of temperatures. The material features very good modulation and release characteristic.











Very popular in club racing and track days. GT cars, Touring cars and prototype endurance racing. Due to excellent modulation characteristics also often used in sprint races.

#### DESCRIPTION

RSL 29 features very good modulation and release characteristics. It is a low metallic resin bonded material containing steel and aramid fibers. The friction level of the material maintains constant at a low-medium level. Another advantage is the easy bedding in behavior.



REAR AXLE COMPOUND

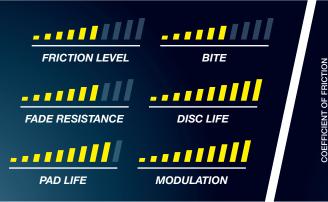
DIGRESSIVE INSTOP BEHAVIOUR

GOOD INITIAL BITE

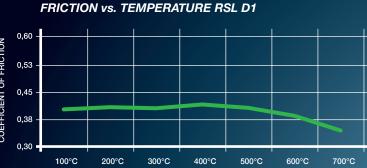
LONG PAD & DISC LIFE

LOW FRICTION LEVEL

GOOD FRICITON STABILITY VS. TEMPERATURE



RSLD1



#### **APPLICATION RANGE**

Especially for race cars with high aerodynamic downforce level - with a wide brake balance range.

Sanatics

ROLEX

#### DESCRIPTION

ROLEX

ROLEX

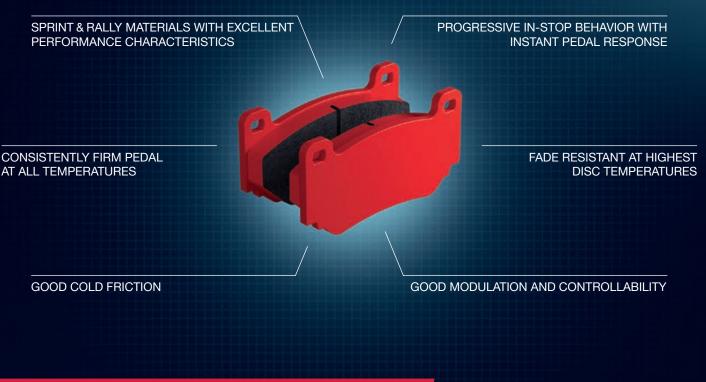
Specifically developed for rear axle applications. The compounds are compatible, providing benefits in terms of vehicle stability during the turn-in stage and unloading the front axle regarding pad wear.

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#### RALLY, SPRINT AND STOCK CAR RACING BRAKE PADS



#### AVAILABLE RST RACING BRAKE PAD COMPOUNDS

RST 1	RST 2	RST 3	RST 4	RST 5	RST D1

The available specifications can be found in the product search on our website: www.pagidracing.com. PAGID Racing RST compounds are developed to comply with the latest requirements for rally, sprint and stock car racing. They meet or surpass all current ecological standards of the automotive industry.

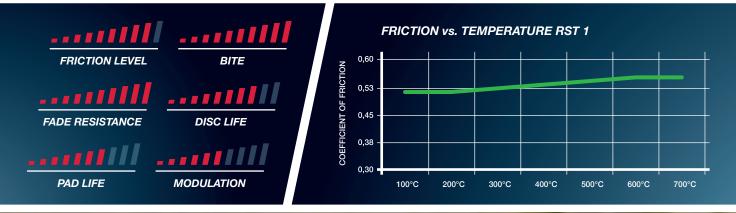
#### **BEDDING IN SERVICE**

You can also acquire our Racing Brake Pads 'ready to race', perfectly bedded in on our computer system. Further information can also be found on page 8. Please ask your dealer about our 'Bedding In Service'.

#### FRICTION vs. TEMPERATURE RST 0,60 \_ COEFFICIENT OF FRICTION RST 1 0,50 RST 2 RST 3 0.45 RST 4 RST 5 RST D1 100°C 200°C 300°C 400°C 500°C 600°C 700°C









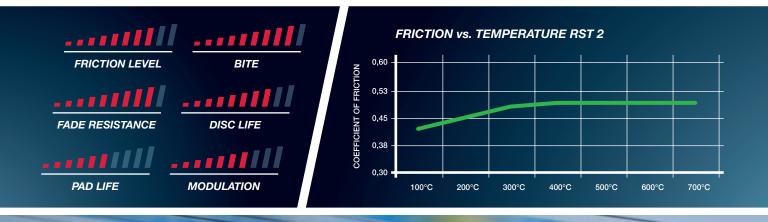
Rally tarmac, GT cars and Touring cars circuit racing (sprint), high down-force formula cars, NASCAR. Suitable for applications in heavy cars and where high torque is necessary against small diameter rotors.

#### DESCRIPTION

RST 1 has a very high friction level and high temperature resistance. It is a semi metallic resin bonded material containing steel fibers. Cold friction and initial bite makes this material most appropriate for Rally and NASCAR applications.







Rally tarmac, GT cars and Touring cars circuit racing and NASCAR. Also used as rear pad in combination with RST 1 front. Recommended for GT and Touring car racing on tracks where higher temperatures are an issue.

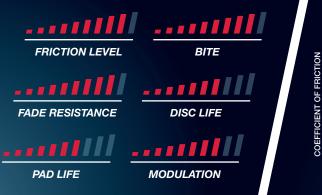
Prowin

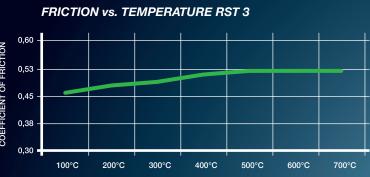
#### DESCRIPTION

RST 2 is a semi metallic resin bonded material containing steel fibers. Cold friction and initial bite makes this material most appropriate for Rally and NASCAR applications.









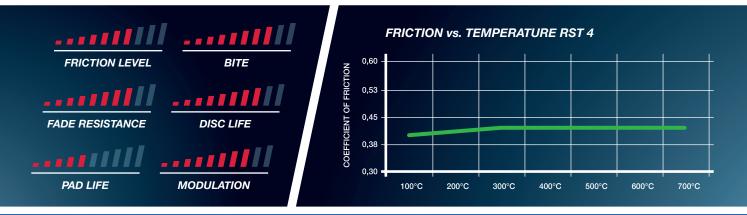
Rally tarmac and gravel, GT cars, Touring cars and prototype circuit racing, formula cars and club racing. Wide range of applications due to its combination of bite, friction and controllability.

#### DESCRIPTION

RST 3 is a medium-high friction metal-ceramic compound containing steel fibers and is therefore the perfect complement of the RST product family. It captivates by its low heat conductivity.







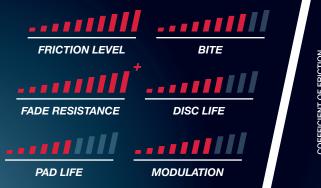
Formula cars and open wheel racing. Rear axle material for Rally (tarmac and gravel) and for all front engine cars. Also used in NASCAR on long ovals.

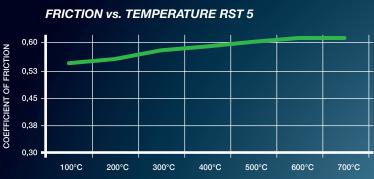
#### DESCRIPTION

RST 4 is a semi metallic resin bonded material containing steel fibers. This material has a medium friction level and high temperature resistance.



OPTIMUM THERMAL MANAGEMENT
OPTIMUM THERMAL MANAGEMENT
HIGHLY FLUID FADE RESISTANT
HIGHLY DEVELOPED
RECOVERY PROPERTIES
EXTREMELY HIGH
FRICTION COEFFICIENT





#### APPLICATION RANGE

Specifically designed and developed for rally racing. Comes in a variety of established pad shapes in rally sports, especially in WRC and Group R.

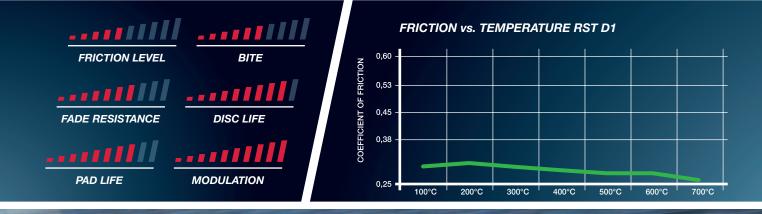
#### DESCRIPTION

The optimized thermal management provides ideal performance from low temperatures to extremely high temperature conditions. The generated heat stays in the brake pad and does not move into the brake fluid. With its high initial bite and generally high friction level the RST 5 perfectly manages the balance between high aggression and prevention of wheel spin, providing the driver with a feeling of reliability and outstanding performance.

rodelse



# REAR AXLE COMPOUND DISTINCTIVE DIGRESSIVE INSTOP BEHAVIOUR PRECISE MODULATION AND RELEASE CHARACTERISTICS LOW FRICTION LEVEL GOOD PEDAL FEEL



#### APPLICATION RANGE

Especially for race cars with high aerodynamic downforce level - with a wide brake balance range.

#### DESCRIPTION

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GS

HUBStands

Specifically developed for rear axle applications. The compounds are compatible, providing benefits in terms of vehicle stability during the turn-in stage and unloading the front axle regarding pad wear.

bodymo

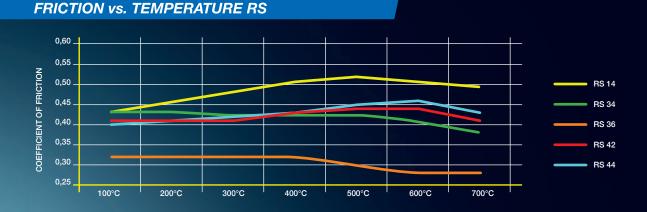




ALLROUND RACING BRAKE PADS



The available specifications can be found in the product search on our website: www.pagidracing.com. PAGID Racing RS compounds are developed to comply with the latest requirements in racing and meet or surpass all current ecological standards of the automotive industry.





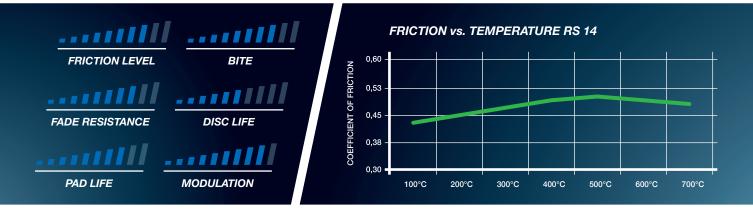


MEDIUM HIGH FRICTION COEFFICIENT

GOOD INITIAL BITE

VERY GOOD MODULATION AND CONTROLLABILITY

LOW WEAR RATE AND FADE RESISTANT UP TO 700°C





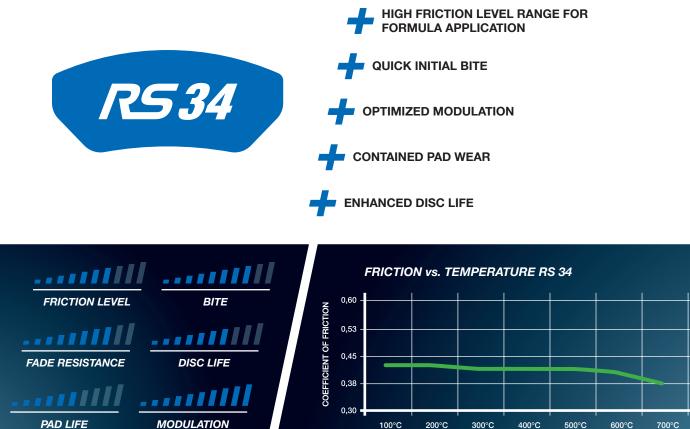
#### APPLICATION RANGE

GT cars, Touring cars for club racing and track days.

#### DESCRIPTION

RS 14 features good allround characteristics for many applications. It is a low metallic resin bonded material containing steel and aramid fibers.





Formula cars and single seaters with cast iron brake discs.

#### DESCRIPTION

RS 34 is a compound specifically developed for formula cars and single seaters with a considerable level of aerodynamic downforce. Its high friction level and optimized shape of friction curve contribute to an excellent controllability with a contained pad wear, which both remain consistent characteristics.





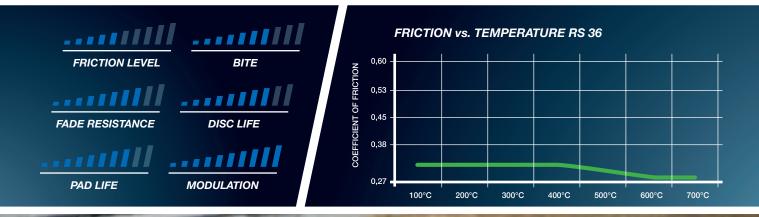


MEDIUM RANGE OF FRICTION LEVEL

OPTIMIZED CONTROLLABILITY AND MODULATION CHARACTERISTICS

CONTAINED PAD WEAR





#### APPLICATION RANGE

Formula cars and single seaters with cast iron brake discs.

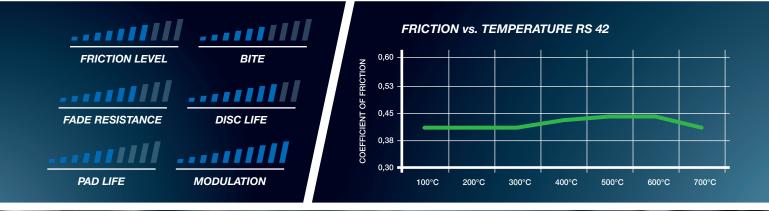
#### DESCRIPTION

RS 36 is a compound specifically developed for formula cars and single seaters with a considerable level of aerodynamic downforce. The characteristic shape of its friction curve contributes to modulation, while protecting the disc.









On the Barre Bandhart and

CORTEX

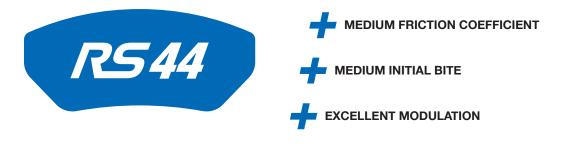
#### APPLICATION RANGE

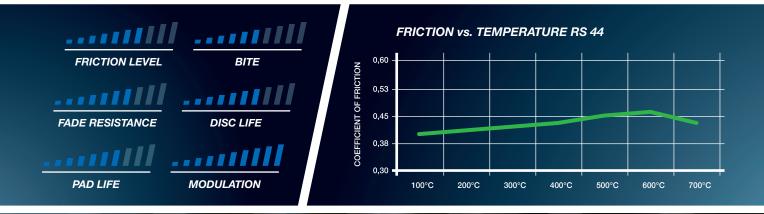
Classic rally pad and also very popular in small formula and Touring cars.

#### DESCRIPTION

RS 42 is a low metallic resin bonded material containing steel and aramid fibers. The characteristics make this material appropriate for small formula cars.







Very good rear axle pad for all front engine cars. Very popular club racing compound.

#### DESCRIPTION

RS 44 works for formula cars all the way up to lighter passenger cars. It is a low metallic resin bonded material containing steel and aramid fibers. The smooth progression of friction from cold to hot makes this material easy to work with.



#### RACING BRAKE PADS FOR CERAMIC COMPOSITE DISCS



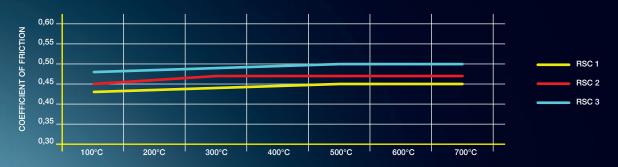
#### AVAILABLE RSC RACING BRAKE PAD COMPOUNDS

RSC 1	RSC 2	RSC 3
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Amazing track day and club sport material for a wide application range of performance cars.

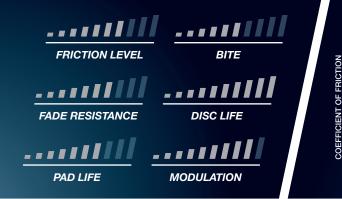
The available specifications can be found in the product search on our website: www.pagidracing.com. PAGID Racing RSC compounds are developed to comply with the latest requirements in ceramic composite brake disc technology and meet or surpass all current ecological standards in the automotive industry.

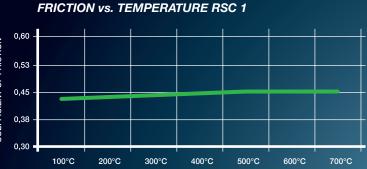
#### FRICTION vs. TEMPERATURE RSC

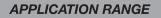












Race and track day compound for all known types of ceramic brake discs.

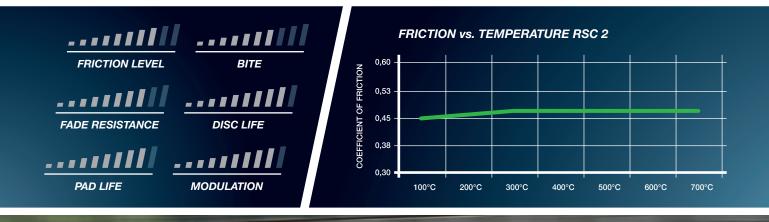
BB RS 3091

#### DESCRIPTION

RSC 1 is a low metallic resin bonded material containing steel and aramid fibers. This material features good all-round characteristics and is suitable for all types of usage.







Special race compound for ceramic discs with a high content of fibers in the friction surface for sprint and endurance circuit racing.

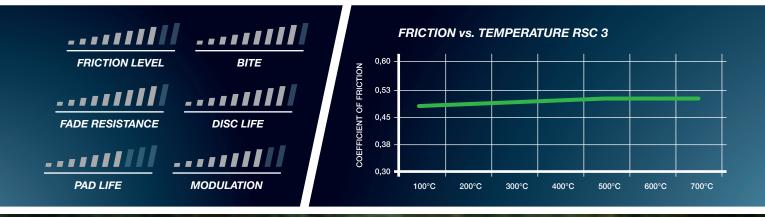
#### DESCRIPTION

RSC 2 is a low metallic resin bonded material containing steel and aramid fibers. This material is specifically developed for above mentioned applications.









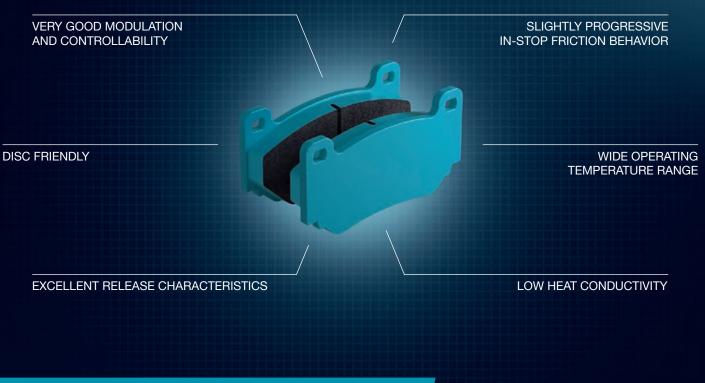
Special race compound for ceramic discs with low content of fibers in the friction surface for sprint and endurance circuit racing.

#### DESCRIPTION

RSC 3 is a low metallic resin bonded material containing steel fibers. This material is specifically developed for above mentioned applications.



RACING BRAKE PADS FOR HISTORIC CARS



#### AVAILABLE RSH RACING BRAKE PAD COMPOUNDS

RSH 3 RSH 29E RSH 42
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The available specifications can be found in the product search on our website: www.pagidracing.com. PAGID Racing RSH compounds are developed to comply with the latest requirements in historic racing and meet or surpass all current ecological standards of the automotive industry. Available model years in the extensive application range starts in the late 50s and goes up to the 90s.

FRICTION vs. TEMPERATURE RSH 0,60 \_ **COEFFICIENT OF FRICTION** 0,55 0,50 -RSH 3 0,45 RSH 29E 0,40 RSH 42 0.30 100°C 200°C 300°C 400°C 500°C 700°C 600°C



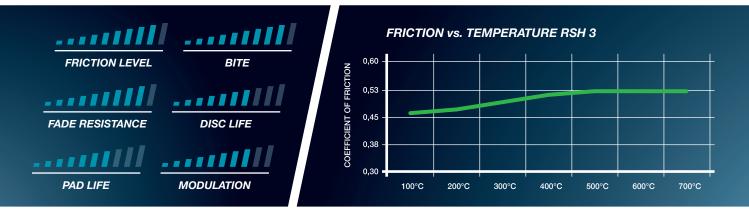


HIGH FRICTION COEFFICIENT

LOW THERMAL CONDUCTIVITY

FADE RESISTANT UP TO 800°C

CONSISTENTLY FIRM PEDAL AT ALL TEMPERATURES



#### APPLICATION RANGE

Useable for Rally, GT and Touring cars for circuit racing and also for club racing.

PORSCHE - KREM

Ingermeiner

#### DESCRIPTION

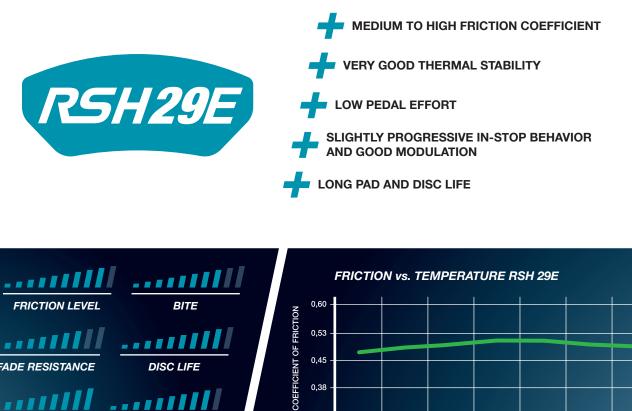
The RSH 3 is an organic compound optimized for sprint races with historic cars. Due to the perfect combination of the main characteristics we can offer a wide application range. It captivates with its high initial bite and excellent modulation and release characteristics.



\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

FADE RESISTANCE

APPLICATION RANGE



0,45

0,38

0,30

\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ MODULATION PAD LIFE

Typical purposes are GT and Touring cars in

also use it in sprint races as well.

endurance races. Due to its friction level you can

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DISC LIFE

#### DESCRIPTION

200°C

300°C

100°C

The RSH 29E is excellent for endurance racing with historic cars. It convinces with its long pad and disc life and requires less pedal effort during the race. A further advantage is the constant friction level over a wide range of temperatures.

400°C

500°C

600°C

700°C





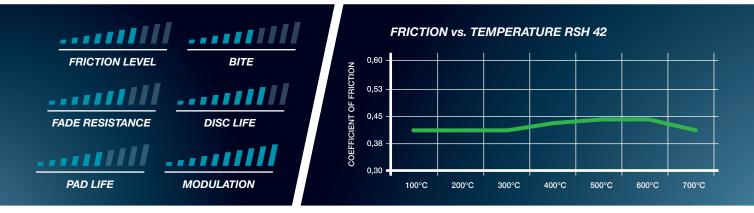


LOW TO MEDIUM FRICTION COEFFICIENT

GOOD COLD FRICTION

IMMEDIATE LOW TEMPERATURE RESPONSE

VERY EASY BEDDING PROCESS



#### **APPLICATION RANGE**

An excellent classic rally pad which is also very popular in small formula cars.

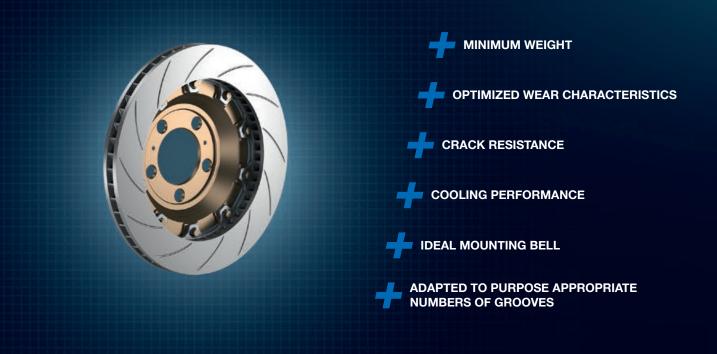
#### DESCRIPTION

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GOODEYEAR

The characteristics of RSH 42 make this material appropriate for small formula cars. Furthermore, you can use it as rear axle compound in combination with the RSH 29E on the front axle.





#### **CREATING SYNERGY DESERVES AN OPTIMIZED PARTNERSHIP**

An uncompromising and highly efficient partnership between brake pad and brake disc – this was the development criteria for our PAGID Racing brake disc. Under this aspect the full characteristics were developed and set up for the intended purpose.

Strict quality controls during a long development process result in a high performance racing brake disc, optimized for weight, cooling performance and crack resistance. In conjunction with our brake pads our products create a highly efficient "brake team".

The modular design allows in most cases the use of either the lightweight version (for sprint races or rally), or the endurance version with the same hat (bell) for the specific vehicle applications.

#### **DESIGN FEATURES**

Floating connection between bobbin and disc eliminates wear on the hard anodized hat and makes it reusable multiple times. Airflow onto the outside friction face is achieved through the proper sized openings in the connection flange to the disc.

Specially designed ventilation chamber to optimize the thermal exchange rate between disc and cooling airflow.

The surface finish (groove pattern) has been developed in combination with PAGID Racing brake pads for best system performance and wear characteristics.





## HONDA





#### DESCRIPTION

One of the biggest challenges developing a brake fluid is to reach a boiling point as high as possible. PAGID Racing Brake Fluid has been specially formulated for racing applications, where brake systems consistently operate at very high temperatures.

The typical dry boiling point of 330°C (626°F) is extremely high and guarantees maximum safety against vapor lock.

PAGID Racing Brake Fluid also maintains its excellent viscosity, lubricity and compressibility performance at extreme temperatures, maintaining the brake system reliability and performance.

#### USAGE

- · Follow vehicle manufacturers' recommendations when adding brake fluid
- Keep brake fluid clean and dry
- · Store brake fluid only in its original container
- Dispose of used brake fluid responsibly

#### **ATTENTION!**

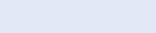
For best results bleed the system with fresh PAGID Racing brake fluid before each race, especially if the brakes are excessively hot and/or the conditions are humid.



RACING BRAKE FLUID

**PAGID** 

#### **Overview Boiling Point** Information Category Size 0,5L / 16.9 fl. oz. ERBP Dry [°C] / [°F] 330 / 626 200 / 392 ERBP Wet [°C] / [°F] Typical Dry Boiling Point: Viscosity at -40 °C [cSt] 2200 626 °F / 330 °C Viscosity at -100 °C [cSt] 2.31 рΗ 6.90 Fluidity [°C] -50 Compatibility [°C] -40 to +60 Colour Straw yellow Water content [%] < 0.20 Typical Wet Boiling Point: 392 °F / 200 °C Density at 20 °C [g/ml] 1.080 Vapour density N.E. Vapour pressure at 20 °C [mBar] °C [mBar] < 2











Your PAGID Racing Dealer

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