

KGC BRAKE SYSTEMS

The best control of speed

K G C B R A K E

Smooth and strong braking technology for best control of speed

Presents the utmost satisfaction in street performance with strong but smooth performance and braking sensitivity



KGC has a broad lineup of its main product disc brake systems including the official products, RS line with improved performance, and KGC XR high performance tuning class to satisfy the specific needs of its customers.



STOPPING BETTER IS MORE IMPORTANT THAN RUNNING FASTER.





Technology

Patented by South Korea,
United State of America, China and Taiwan

Performance

Best satisfaction in the street



Emotions

Smooth but strong





A brake system to stop an automobile is the key part for safer automobiles.

KGC Korea is an automobile part manufacturer which manufactures and supplies the high performance disc brake systems in world markets.

KGC has a broad lineup of its main product disc brake systems including the Genuine Specifications, RS line with improved performance, and KGC XR premium high performance tuning class to satisfy the specific needs of its customers.

You can feel the supreme satisfaction for braking with KGC brake.

KGC is the abbreviation of Kumgang Co. and signifies the beginning of the company.

Since 1997



Your choice can feel the best satisfaction

Genuine Specifications

KGC BRAKE DISC

KGC disc rotor is the single-body Genuine Specifications disc rotor using the durable carbon steel and precisely manufactured by the state-of-the-art, fully automated production system. KGC disc rotors vary by car type.



Genuine
specifications
brake disc



Stable Braking Performance

Designed for cooling efficiency assures that there is no deformation or vibration as the surface hardness degradation at high temperature is restrained. As such, it offers outstanding stability and braking power not only during general navigation but also during sudden brake under the extreme weather or high speed.



Good Quality

The carbon steel disc rotor means high durability. KGC suppressed the degradation of surface hardness at high temperature by securing light weight and rigidity with the optimum material for the physical properties and optimum design using the structural analysis. As the result, the product has been favorably received by the customers for a long time for its unique quality stability.



High Durability

The wear-resistant carbon steel disc rotor means high durability. The materials and outstanding perforating technology applied to KGC Korea's disc rotors have been proved by the fact that there has never been any crack related claim since the disc rotor was introduced in 2003.



Rational Price

KGC disc rotor is manufactured by the state-of-the-art, fully automated production line with minimum post-processing. KGC Korea is able to price its products around 50% lower than the official products by manufacturing them with know-how accumulated through more than 10 years of disc rotor manufacturing and high productivity.



Sales Service

KGC Korea's disc rotor first started exporting in 2004, and is now renowned for its excellency in performance and stability even in the extreme conditions of Russia and Middle East, becoming a favored brand throughout the world.





KGC RS (racing standard) lineup is a semi-tuned disc rotor which offers you dynamic performance in reasonable price and maintenance costs by adopting the standards of original parts.

KGC RS disc rotor varies types for the Korean and European autos, and are sold in reasonable prices similar to original parts.

RS disc rotor has the same standards as the original parts, so no burden comes when tuning or upgrading, and is highly compatible with the parts manufactured by other companies.

Enjoy the dynamic performance at maximum cost-effectiveness.

Easy brake tuning solution



Dynamic performance at reasonable price

Easy Tuning

KGC RS BRAKE DISC

KGC RS is a semi-tuned disc rotor which offers you dynamic performance in reasonable price and maintenance costs by adopting the standards of original parts. KGC Korea's disc rotors are registered with patents and designs.



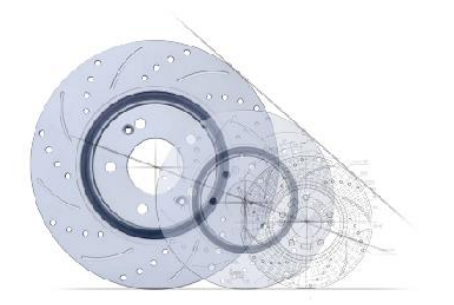
Easy Tuning Disc

KGC RS Disc rotor varies in 500 types for the entire domestic and some European cars, and is sold in reasonable prices similar to original parts. RS disc rotor has the same Specifications as the original parts, so no burden comes when tuning or upgrading, and is highly compatible with the parts manufactured by other companies. KGC RS disc is a semi-tuned disc with excellent cost-effectiveness.



Structural Mechanics Design

The disc from RS lineup have perforated slots for enhancing the heat radiation and braking. The perforated slots, which are effective for releasing debris and gas generated from the friction with brake pads, and effective for enhancing heat radiation as well as increasing frictional force, are produced by automated system during the manufacturing process designed to consider the structural mechanics of disc.



Cooling Performance

The ventilator vane of RS disc emits the air from the center to the outside using the centrifugal force during high-speed driving to cool down the disc plate. The penetration-type perforation suppresses the rapid increase of temperature when braking, and maximizes the cooling performance by linking with the ventilator vane.



Braking Performance

KGC RS disc shows excellent braking performance by adopting materials with high friction coefficient and perforated slots. Also, its excellent cooling performance suppresses fade and deformation, so the safety and braking are assured in any circumstances such as general driving, bad weather conditions, and high speeds.



Outstanding Durability

KGC RS' s high-quality carbon iron disc rotor has high durability, and broke the prejudice that the perforated disc is vulnerable to cracks, by the perforation design considering structural role.





KGC XR (extreme racing) is the brand representing the high performance brake system and reliable driving partner which applies the best brake technology to protect the life of not only the occupants of the vehicle but also the occupants of other vehicles as well as the pedestrians.

KGC XR consists of 'M-Class' which is the high performance caliper product range, 'F-Class' which is the high performance disk rotor product range, and 'S-Class' which is the high performance brake pad product range.

KGC XR Brake system Presents the utmost satisfaction in street performance with strong but smooth performance and braking sensitivity.

XR stands for extreme racing and represents KGC's brake technology that can perform the outstanding performance even under the extreme conditions.

High performance brake systems



M4 Smart caliper and F14 disc

HIGH PERFORMANCE BRAKE CALIPER

KGC XR **M** class

This M-Class is a product range of light weight mono-block caliper that has acquired the patent of Korea, America, China and Taiwan.

It is a high performance brake caliper for general street that has the characteristics of high efficiency hydraulic pressure line, high structural hardness and high strength stainless piston.

M class high performance brake caliper

- It demonstrates the optimum pedal effect with built-in bridge pipe and efficient hydraulic pressure line.
- It has the size to minimize the use of hub spacer and accomplish high performance.
- It is available to install with larger than 18 inches wheels.
- It has high pad compatibility.



Light Weight Aluminum Alloy Mono Block

It is a light weight aluminum alloy caliper with the mono block structure that forms the one lump of housing. It responds to brake heat and pressure efficiently through the post-treatment process of special material, heat treatment and reinforced anti-corrosion.



'M4 SMART' 4POT BRAKE CALIPER



Pad Spring

The pad spring with proper elasticity suppresses the shaking and miscellaneous noise of the pad and relieves the interference sound of disk and pad that occurs by the clearance of hub bearing when taking sharp corner.



Smart High Strength Structure with Radiant Heat

It retains a smart structure that has considered the hardness, fatigue strength, radiant heat and exterior beauty. It responds to the high pressure and heat efficiently that occurs at braking.

Design the Technology

We have harmonized the beauty of straight line and curve with the technical elements of structural hardness, fatigue strength, radiant heat and built-in bridge pipe to give genuine design identity to have the value to possess and the pleasure to see.



Heat Resistance & Anti-Corrosion Finishing

The housing has been protected by layers with anodizing, powder coating and clear coating to raise the anti-corrosion, heat resistance and cold resistance. Two basic colors are 'indigo aura'(a dark gray of blue color) and 'coral red'(a coral red of pink color).

INDIGO AURA, CORAL RED

The brake caliper for general roads requires of the long period of durability under various environments. The dust cover which is located at the entrance of the cylinder suppresses the inflow of pollutants to the cylinder and prevents the declined performance and shortened lifespan of the caliper.

Dust Cover



Korea's Patented Brake Technology

It is a Made-In Korea brake caliper that has received patents of Korea, America, China and Taiwan regarding a mono block brake caliper with built-in bridge pipe of optimized hydraulic pressure line.

Hydraulic Pressure Line with Optimized Safety and Performance

The bridge pipe that connects facing cylinder has been integrated into built-in type to remove the fracture and the corrosion of exposed pipes and the worry of oil leak. The composition of brake fluid line with the optimum shape has improved the pedal effort and brake function.



Ventilated Stainless Steel Piston

The heat transfer rate inside the caliper is low by the low heat transfer rate of high price stainless steel piston, which rate is just one tenth of aluminum. The vent of piston's edge interconnects with the vent of the caliper to raise the air cooling effect and suppress the vapor lock.

Dome Back Stainless Steel Piston

The piston has been designed with the high strength stainless steel of excellent anti-corrosion and heat resistance for a dome structure with excellent torque transfer. It presents high braking pedal effect and prompt response.



M4 Smart caliper and R14 disc

HIGH PERFORMANCE BRAKE DISC

KGC XR **F** class

It is a product range of brake disc for M-Class.

It is a product range that has further advanced in order to meet the requirements of high performance disc such as braking power, radiant heat, hardness and lightening.

It is a premium brake disk rotor to which directional ventilation, high carbon plate and aluminum alloy hub bell have been applied.

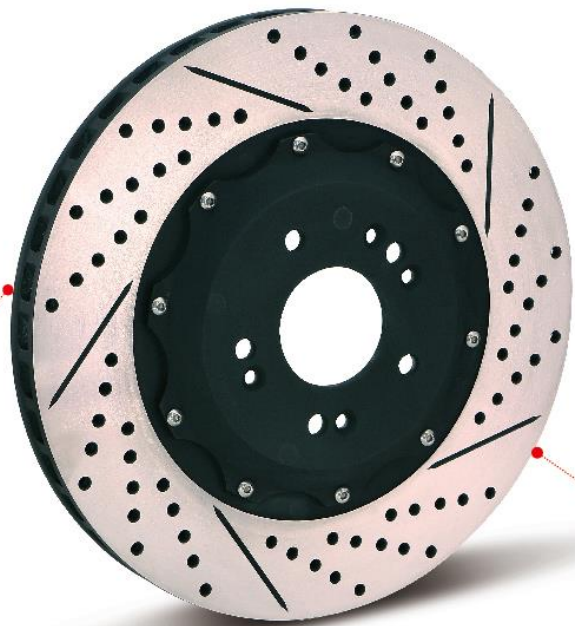
F class high performance brake disc

- High carbon steel alloy brake disc.
- It is a high strength disc rotor with high friction coefficient.
- It is available to use it on both general road and track.
- Its directivity can distinguish left and right.



High Carbon Steel Alloy

The disc, compared to common type disks, retains lower deformation, crack and abrasion rate, and higher relative friction force with the pad. If the hardness is higher, the friction coefficient is declined. To complement this kind physical feature of weakness to the crack, its material is high carbon steel alloy which carbon contents are increased and molybdenum and chrome are added.

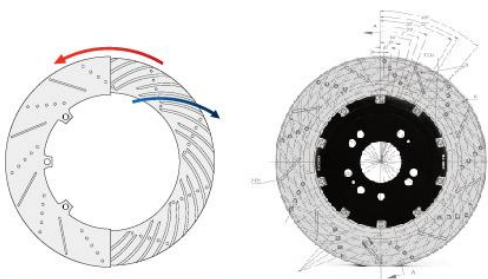


R-Series

It is a 1-piece disc rotor of 2-piece design that focuses on the managment and cost convenience compared to F-Series.

Verified Product Quality

Since the exportation in 2004, we have competed with domestic and overseas global companies and grown while accumulating reliability by the verification for actual use under extreme environments such as in Russia, Middle East and Africa. In the year 2020, the KGC brake could be found in about 30 countries in the world.

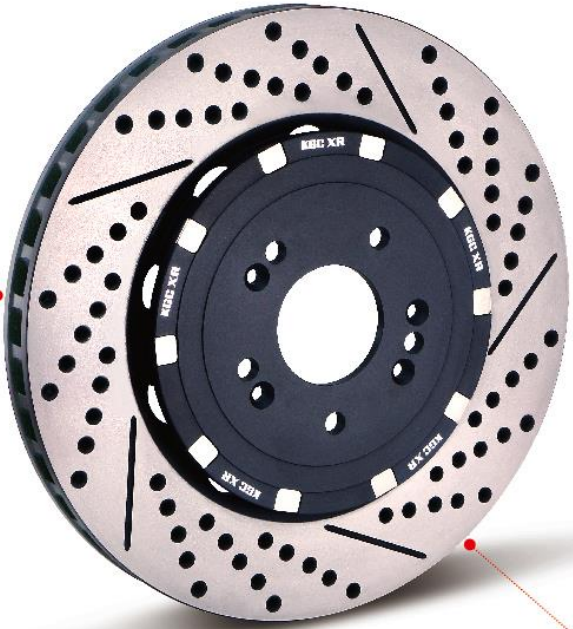


Excellent Radiant Heat Performance

With the application of directional spiral vent, the performance of radiant heat has been raised and the heat transfer to the hub bearing has been reduced (L/R symmetry). The spiral vent shows higher efficiency of pressurized exhaustion rate by the centrifugal force at high speed rotation but also has the merits of the low atmosphere collision resistance of discharged air and the suppression of inverse flow of the air. Also, the perforated holes minimize heat island and helps the natural radiant heat at a low speed.

Exterior Appearance and Performance that Attract the Attention

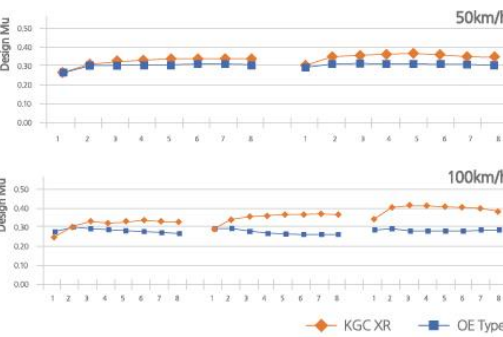
Drilled and slotted pattern designed by considering aesthetics raises the braking force, reactivity and consistency. Processed in the manufacturing process according to the precision design that considers the vent structure, the perforated holes and slots discharge heat, gas and dust to improve brake performance and consistency and suppress the formation of hydroplaning to raise the brake response on the raining roads.



F-Series

It has a 2-piece type disc rotor that meets the requirement of lightening and high performance.

Dynamometer Test	F-class	OE Type
Disc Temperature	257°C	278°C
Pad Wear	2.447mm	2.625mm
Disc Wear	0.295mm	0.812mm



Excellent Control and Efficiency

From the result of comparison test for F-Class and OE type disk by a brake dynamometer, the high relative friction coefficient of F-class disk has shown excellent brake performance. Low temperature and small wearing amount in the test have proved excellent radiant heat and efficiency.



Patented Design

Patent number (10-0825369), Design registration number (30-0478862, 30-0478861, 30-0510115, 30-0510114, 30-0788161, 30-0700707, 30-0448148, 30-0838966)



BRAKE PADS FOR
PERFORMANCE-ORIENTED
STREET USE

S4 Sport Brake pad

H I G H P E R F O R M A N C E B R A K E P A D

KGC XR **S** class

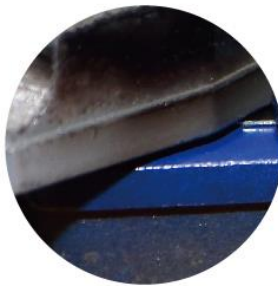
It is a product range of brake pad for M-Class.
It has the merits of soft but strong braking performance,
low disk aggression and reasonable price.

S class sport brake pad

for performance-oriented street use

Suppression of Noise and Vibration

It is a kind of sports pad for roads focusing on the performance but for more convenient dynamic driving, we have made a continuous effort for the reduction of N.V.H (noise, vibration, harshness).



Heat Resistance Coating

The oxy-nitriding and heat resistance coating of back plate suppresses the corrosion and the solidification of dust to raise the smooth operation of the pad.

Reasonable Price

It enables the best performance in practical use with high friction force of sticky sensitivity but also its reasonable price adds the satisfaction.

SW-Series

It is a premium pad with high convenience.
It has the mid to high level performance of FF grade.
Dust and noise rarely occur.

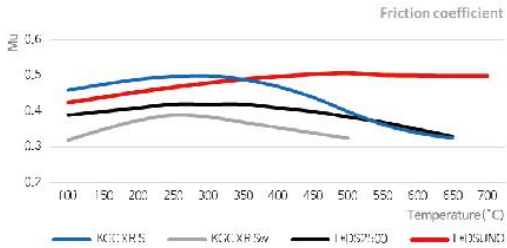
Verified Product Quality

We have been manufacturing S class pad through OEM supplier, the professional company for friction materials who started with FERODO's technical support and capital joint venture.



S-Series

High performance brake pad.
It is a semi-metallic brake pad for general roads.
Mu 0.48 (GG grade)
Dust and noise can occur.



High Braking Force in Practical use

S-class is the sports pad that demonstrates high performance in a driving condition on general road. The higher the performance of friction material and the response to high temperature are, the noise and brake sensitivity become less. S-Class focuses on the braking performance of actual use on public roads driving. Compared to the pad for track, KGC XR S class pad and FERODO DSUNO have Mu 0.48 both, but the performance of KGC XR S is higher in Actual use at around 300°C (for the average friction coefficient at 200~500°C). The performance of DSUNO is higher even at ultra high temperature at 200~700°C.

Specifications

You can find more detailed specifications on KGC online.

① Click! KGC parts

③ Click! CarMaker logo

Company

KGC parts

KGC XR parts

Partner

Customer

KGC parts

Disc rotor

HS disc rotor

Brake pad & shoe

Water pump

Shock absorber

Lower arm

Drive shaft

Cylinder

Clutch disc

+82-2

2216

4011

Disc rotor

Home > KGC Parts > Disc rotor

A = DIAMETER

B = OVERALL HEIGHT

C = THICKNESS

D = MINIMUM THICKNESS

E = CENTRING DIAMETER

F = NUMBER OF HOLES

Model	Image	Variant	Year	Axis	KGC No.	Type	Size					
							A	B	C	D	E	F
MORNING		MORNING	04/02-07/12	F	GD2310-128	Vented	243	40	19	15	62	4
		MORNING	04/02-07/12	R	GD2320-358	Solid	233	37.8	10	8	62.5	4
		MORNING	04/02-07/12	R	GD2320-388	Drum	220	58.6	180	182	62	4

www.ikgc.com

Notice

- Prohibited to drive which may be hazardous to oneself or other's safety just by the fact of equipped high performance brake. A driver should observe the related traffic regulations and consider the conditions of vehicle and roads at braking.
- The brake is a product of safety first in relation to interaction while caliper, pad and disk are moving respectively. Problem may occur at the installation and maintenance by non professional, and the arbitrary combination of parts.
- When the brake is upgraded only, the possibility of shortened lifespan of relevant parts like hub bearing may increase. For dynamic driving, a balance upgrade of related parts is necessary like tire and damper etc.

PRODUCT IMAGE

KGC (Genuine Specifications)
KGC RS (Slotted, Drilled)

CARMAKER DISC NO.

APPLICABLE VEHICLE IMAGE

www.kgcbrake.co.kr

OE NO.	51712-F6000	
Car Info	Model	GRANDEUR IG
	Variant	GRANDEUR IG 18"
	Year	16/11
Product Info	Axis	Front
	Type	Vented
	KGC No.	1UDH113
Product Size	Diameter(A)	302
	Overall height(B)	43
	Thickness(C)	28
	Minimum thickness(D)	26
	Centring diameter(E)	69
Number of holes(F)	5	

- Abnormal overheat due to the use under the condition of general roads and other environments and excessive heat impact such as wheel washing under high-temperature condition may cause fatal failure or deformation. You can reduce this kind of symptom when brakes are overheating, park a car after it has cooled.
- Disk rotor, pad, dust cover and oil seal of caliper are consumables. Disk should be replaced when its thickness is worn out to 1mm, pad when its remaining friction material reaches 2mm, and dust cover and oil seal when the cylinder does not run smoothly.
- Pattern disk can cause the original performance sound like "Boo-woo" noise at braking, and the high performance pad (above Mu 0.4) can cause the sound of "squeal" noise at low speed braking. The noise by the material of the pad may occur when pad or disk is covered with moisture.
- The high performance pad can occur noise even without defect in the product or installation. The main cause is the braking in a condition of low closeness with the disk at the low speed braking. To reduce the noise, it is recommended to replace the lower-performance pad.

Specifications

Bedding: The parts that move the brake interact each other so that bedding is recommended for even the exchange of one part. The bedding is the process for piston, pad and disk to be settled naturally while the contact surfaces rub and return. Under the condition of placing a vehicle on the lift after the mounting, start the engine and push the brake pedal repeatedly to check the operation and any leakage. Check if normal braking is implemented while driving slowly and if any abnormal noise or vibration occurs. Lightly brake sporadically about 30 times under the speed of 60km/h to settle the parts. Gradually increase the pressure to push the brake for even abrasion of both disk and pad to closeness and drive the distance of about 300km. The bedding is completed while the friction surface wears out smoothly along the rotational radius. The method and distance to adjust may be different by driving environment, performance and material.

M class



	M4s
Body	Aluminum 304x133mm
Weight	3.28kg (no pads)
Pistons	Stainless steel 40Ø
Disc	355x32mm
Private pad	KGC XR - s4w, S4
Compatible pad	Brembo (Genesis coupe front), Ferodo 1334
Color	Coral Red, Indigo Aura

F class



	R14	F14
Material	High carbon steel alloy	
Size	355mm	
Thickness	32mm	
Mounting Offset	41.8mm	41.8mm
Pad height	max. 60mm	
Weight	9.8kg	8.9kg
Coating color	Black	

Warranty

KGC brake provides the warranty of quality for the product in accordance with the consumer dispute resolution criteria of the Fair Trade Commission. After installing the product, due to the irrelevant reason with the function, product return and payment refund are not accepted. Please check the product before installation.

The period of quality warranty is applicable in case of a malfunction occurred under normal use that has observed traffic regulations on general road driving. From the day installing on, the condition whichever coming first will be applied.

Caliper, 2-piece disc

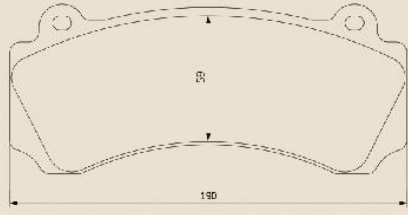
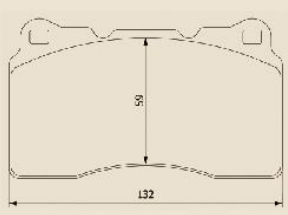
1 year or 20,000km

1-piece disc, pad

6 months or 5,000km

Squeaky Noise: Metal dust occurred in the disk is burned incompletely at a weak braking to turn into foreign substances to cause the noise. If metallic pad is matched here, the amount of metallic dust increases rapidly but also its performance rises, so that the pad gives relatively a weak braking at low speed and the noise increases. If the performance of the pad is lowered to raise the braking pressure relatively, an incomplete combustion is reduced to eliminate the noise. But if the performance is considered in priority, it is recommended to try a method to remove dust periodically and reduce foreign substances.

S class



	S4w	S4	S6
Grade	FF	GG (mu 0.48)	GG (mu 0.48)
Length	132mm		190mm
Height	59mm		59mm (friction material)
Thickness	15mm		17mm
Application	KGC XR M4, M4S		KGC XR M6
Cross reference	Brembo (Hyundai Genesis coupe front), Ferodo		Brembo GT 6pot N-type, Ferodo 3098
Color	Grey (steel backing plate)	Blue (steel backing plate)	Blue (steel backing plate)

We would like to notify that the following cases are out of the range of warranty.

- The use of the brake that violates traffic regulations such as speeding and violent driving or the deformation and damage of the brake by consumer's negligence such as wheel washing under high-temperature condition.
- Wrong installation of the product and arbitrary processing or deformation
- Excessive use over 50% (disk thickness 0.5mm, pad friction material ½)
- Damage occurred on relevant product by excessive use over the limit (disk thickness 1mm, remained pad thickness 2mm)
- No relation with the functions such as normal discoloration, noise, dust and crack within 5mm on disk holes
- Irrelevant physical force of the original manufacturer such as product installation, natural disaster t and intentional damage

You can feel the supreme satisfaction for braking with KGC brake.



