



# BICYCLE

CHOOSE THE POWER OF PERFORMANCE



2023







## BIKE

### **BRAKE PADS**

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## 125 YEARS OF BRAKING EXCELLENCE

Ferodo® is the premium braking brand and one of the global leaders in both the Original Equipment and aftermarket sectors for a wide range of vehicle types.

For over 125 years Ferodo has been synonymous with excellence and a continued commitment to innovation.

Ferodo now extends this experience and pedigree to the bicycle world. Pioneering research and development, bold engineering and extensive road and track testing ensure performance, safety and reliability.

## QUICK LOOK BENEFITS

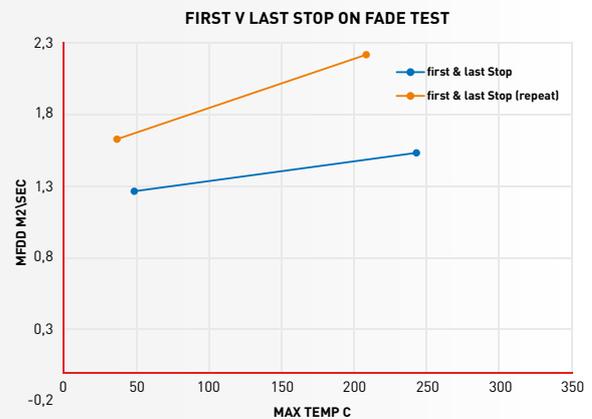
### DEVELOPED FROM THE LAB TO THE TRACK



Our numerous dynamometers can simulate any type of braking condition. From a tough mountain descent to E-Bike urban riding, we use them to measure objectively how the brakes perform.



Once we are confident that a material ticks all the boxes, we start bicycle testing. Our bikes are instrumented to measure multiple parameters such as deceleration, pressure, temperatures, and lever travel.



### ECE-R90 HOMOLOGATION



Our brake pad materials designated for road-use are **ECE R90 certified**.

This means that they have been tested by an authorised third-party testing centre and have been judged to perform, in a series of defined tests, similarly to the original equipment pads.

### ENVIRONMENTAL COMMITMENT

- Our brake pads are manufactured in our Spanish friction plant to strict European standards concerning the choice of raw materials
- We reduce part consumption by placing a very high importance on product longevity
- We have developed our packaging to minimise the use of plastic

### QUALITY

Our Spanish brake pad production plant is **IATF 16949** certified and passes stringent audits to supply multiple high profile OEM automotive platforms.

## RACING TECHNOLOGY

Ferodo has been at the forefront of vehicle racing for over 90 years and we have used all this know-how in the development of our bicycle brakes. Ferodo brakes are developed to excel in the **four phases of braking**.



### PHASE 1

#### **B**ITE

This is the first part of the braking event and describes how quickly the brake reaches its operating torque.

A rider wants to feel the brakes “bite” instantaneously when pulling the lever.

### PHASE 2

#### **D**ECELERATION

Most of the deceleration needs to be made when the bicycle is travelling in a straight line when the tire grip is at a maximum. In this phase the rider wants the highest possible brake efficiency (deceleration for given lever pressure).

The brake pads coefficient of friction ( $\mu$ ) represents this efficiency. The higher the coefficient of friction of the pad, the lower the lever force required to decelerate.

### PHASE 3

#### **M**ODULATION

In the modulation phase, turning into the bend, the principal requirement becomes responsiveness of the lever rather than braking power.

### PHASE 4

#### **R**ELEASE

At the end of the braking event, when lever pressure is released, it is important that the brake pads release instantaneously from the disc thus eliminating residual brake drag.

**FBP\*\*\*FE**

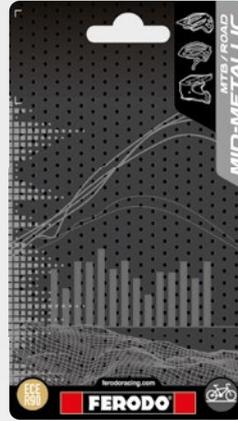
E-BIKE



- This is a high metallic formulation using resin binding technology
- Designed specifically for E-Bikes
- ECE-R90 certified
- Precision engineering standards are applied to the backplates and the brake pad finishing

**FBP\*\*\*FM**

ALL-ROUND



- This is a high metallic formulation using resin binding technology
- Described as an All-round compound as it is suitable for a wide range of applications
- It offers the comfort expected in leisure and road riding and the performance needed for downhill descents.
- ECE-R90 certified
- Precision engineering standards are applied to the backplates and brake pad finishing

**PAD COMPARISON**

Scale 1 to 5 (1=minimum)

	PAD LIFE	FRICTION LEVEL	FADE RESISTANCE	CONTROLLABILITY	COMFORT
FE	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
FM	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

**LEGEND:** **Pad Life:** how long the pad lasts / **Friction level:** overall mean friction coefficient / **Fade Resistance:** resistance to drop-off in friction coefficient under severe braking conditions / **Controllability:** how easy the brake is to modulate / **Comfort:** the absence of brake squeal and other vibration generated during the braking event.

**PACKAGING**

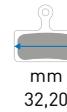
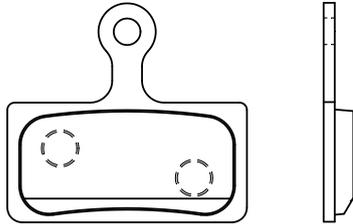


10 sets/box



30 sets (suffix WS)/box

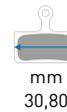
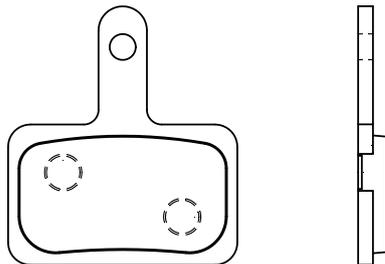
**FBP001**



BRAND	MODEL/COMPATIBILITY
<b>FSA</b>	AFTERBURNER DB-TX-9150, K-FORCE DB-TX-9000
<b>REVER</b>	MCX1
<b>SHIMANO</b>	ALFINE, BR-CX75, BR-M6000, BR-M6100, BR-M615, BR-M666, BR-M675, BR-M7000, BR-M785, BR-M8000, BR-M8100, BR-M9000, BR-M9020, BR-M985, BR-M987, BR-M988, BR-R315, BR-R515, BR-R785, BR-S700, DEORE SLX, DEORE, XT, XTR

PART NUMBER	MATERIAL
<b>FBP001FE</b>	FE: E-Bike
<b>FBP001FE-WS</b>	FE-WS: E-Bike in bulk package of 30 sets
<b>FBP001FM</b>	FM: All Round
<b>FBP001FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

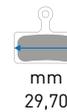
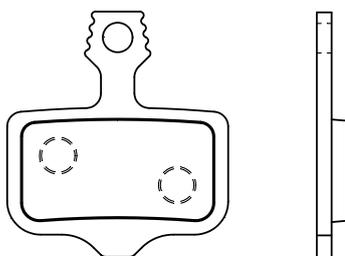
**FBP002**



BRAND	MODEL/COMPATIBILITY
<b>SHIMANO</b>	ALIVIO, BR-475, BR-495, BR-C601, BR-M355, BR-M375, BR-M395, BR-M415, BR-M416, BR-M445, BR-M446, BR-M447, BR-M465, BR-M485, BR-M486, BR-M505, BR-M506, BR-M515, BR-M525, BR-M575, BR-M7000, BR-MT200, BR-MT400, BR-MT500, BR-T615, DEORE, LX BR-T675
<b>TEKTRO</b>	AURIGA, DRACO, HDC300, ORION
<b>TRP</b>	DASH SPORT, HY/RD, HYLEX, SPYKE, SPYRE, SPYRE SLC

PART NUMBER	MATERIAL
<b>FBP002FE</b>	FE: E-Bike
<b>FBP002FE-WS</b>	FE-WS: E-Bike in bulk package of 30 sets
<b>FBP002FM</b>	FM: All Round
<b>FBP002FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

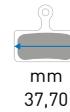
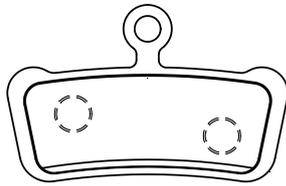
**FBP003**



BRAND	MODEL/COMPATIBILITY
<b>AVID</b>	ELIXIR 1, ELIXIR 3, ELIXIR 5, ELIXIR7, ELIXIR X0, ELIXIR XX
<b>SRAM</b>	DB SERIES, DB, FORCE AXS, RED AXS, RIVAL AXS, X SERIE, X0, X7, X9, XX

PART NUMBER	MATERIAL
<b>FBP003FE</b>	FE: E-Bike
<b>FBP003FM</b>	FM: All Round
<b>FBP003FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

**FBP004**



BRAND	MODEL/COMPATIBILITY
<b>AVID</b>	7 TRAIL, 9 TRAIL, XO TRAIL
<b>SRAM</b>	GUIDE R, G2, GUIDE RS, GUIDE RSC, GUIDE ULTIMATE

**PART NUMBER**

**MATERIAL**

**FBP004FE**

FE: E-Bike

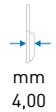
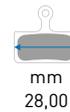
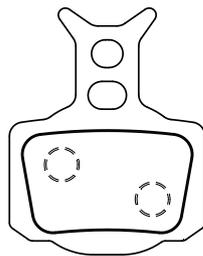
**FBP004FM**

FM: All Round

**FBP004FM-WS**

FM-WS: All Round in bulk package of 30 sets

**FBP005**



BRAND	MODEL/COMPATIBILITY
<b>FORMULA</b>	C1, CR3, CURA, CURA X, MEGA, R1, R1 RACING, RO, RO RACING, RR1, RX, T1, T1 RACING, THE ONE

**PART NUMBER**

**MATERIAL**

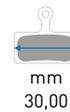
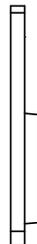
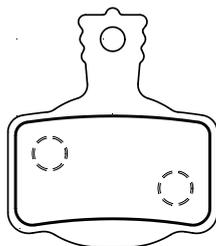
**FBP005FE**

FE: E-Bike

**FBP005FM**

FM: All Round

**FBP006**



BRAND	MODEL/COMPATIBILITY
<b>CAMPAGNOLO</b>	CHORUS, EKAR, H11, POTENZA, RECORD, SUPER RECORD
<b>MAGURA</b>	MT2, MT4, MT6, MT8, MTS

**PART NUMBER**

**MATERIAL**

**FBP006FE**

FE: E-Bike

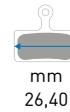
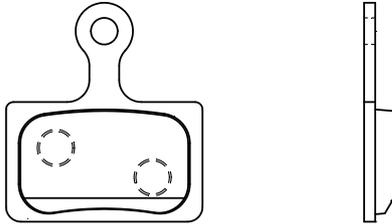
**FBP006FM**

FM: All Round

**FBP006FM-WS**

FM-WS: All Round in bulk package of 30 sets

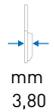
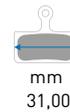
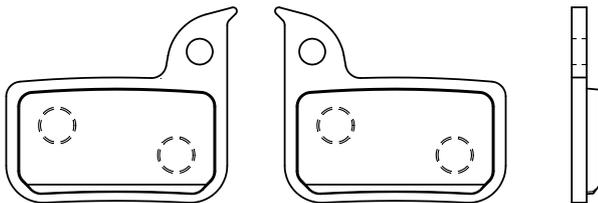
**FBP009**



BRAND	MODEL/COMPATIBILITY
<b>SHIMANO</b>	105, BR-4770, BR-M9100, BR-R70, BR-RS305, BR-RS405, BR-RS505, BR-RS8, BR-RS805, BR-RX400, BR-RX810, DURAACE, GRX, TIAGRA, ULTEGRA

PART NUMBER	MATERIAL
<b>FBP009FE</b>	FE: E-Bike
<b>FBP009FM</b>	FM: All Round
<b>FBP009FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

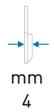
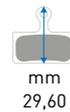
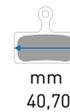
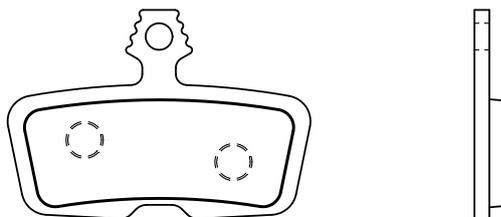
**FBP010**



BRAND	MODEL/COMPATIBILITY
<b>SRAM</b>	APEX, ETAP HRD, FORCE, HRD, LEVEL TLM (-->2018), LEVEL ULTIMATE (-->2018), RED 22, RIVAL

PART NUMBER	MATERIAL
<b>FBP010FE</b>	FE: E-Bike
<b>FBP010FM</b>	FM: All Round
<b>FBP010FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

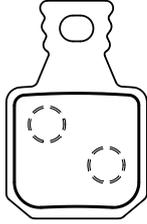
**FBP012**



BRAND	MODEL/COMPATIBILITY
<b>AVID</b>	CODE (2011-2014), CODE R
<b>SRAM</b>	CODE RSC (2018-->), DB8, GUIDE RE, SRAM CODE R (2018-->)

PART NUMBER	MATERIAL
<b>FBP012FE</b>	FE: E-Bike
<b>FBP012FM</b>	FM: All Round

**FBP0013**



BRAND	MODEL/COMPATIBILITY
<b>MAGURA</b>	MT5, MT5E, MT5ESTOP, MT7, MT TRAIL FRONT

**PART NUMBER**

**MATERIAL**

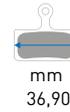
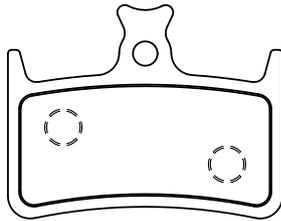
**FBP013FE**

FE: E-Bike

**FBP013FM**

FM: All Round

**FBP0016**



BRAND	MODEL/COMPATIBILITY
<b>HOPE</b>	HOPE E4, RX4 SHIMANO, STEALTH RACE E4, TECH M4

**PART NUMBER**

**MATERIAL**

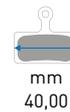
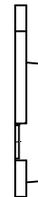
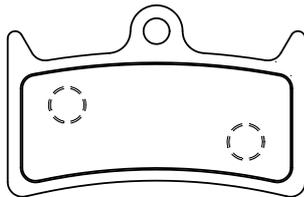
**FBP016FE**

FE: E-Bike

**FBP016FM**

FM: All Round

**FBP017**



BRAND	MODEL/COMPATIBILITY
<b>HOPE</b>	V4
<b>TRICKSTUFF</b>	MAXIMA

**PART NUMBER**

**MATERIAL**

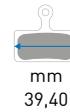
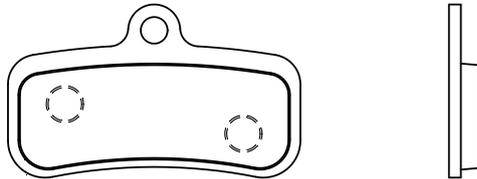
**FBP017FE**

FE: E-Bike

**FBP017FM**

FM: All Round

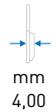
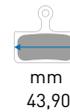
**FBP018**



BRAND	MODEL/COMPATIBILITY
<b>SHIMANO</b>	BR-M820, BR-MT520, XTR BR-M9120, ZEE, SAINT BR-M810, XT BR-M8020
<b>TEKTRO</b>	HD-M725, HD-M735, HD-M745, HD-M750
<b>TRP</b>	QUADIEM, QUADIEM SL, SLATE T4

PART NUMBER	MATERIAL
<b>FBP018FE</b>	FE: E-Bike
<b>FBP018FE-WS</b>	FE-WS: E-Bike in bulk package of 30 sets
<b>FBP018FM</b>	FM: All Round
<b>FBP018FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

**FBP019**



BRAND	MODEL/COMPATIBILITY
<b>FORMULA</b>	CURA 4

PART NUMBER	MATERIAL
<b>FBP019FE</b>	FE: E-Bike
<b>FBP019FM</b>	FM: All Round
<b>FBP019FM-WS</b>	FM-WS: All Round in bulk package of 30 sets

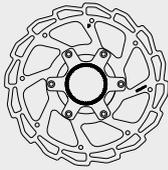
**CROSS REFERENCES**

FERODO	GALFER	BRENTA	SWISSSTOP	MOTO MASTER	EBC	ALLIGATOR
<b>FBP001</b>	FD452	122	DISC 28	4	CFA614	52 516 0353
<b>FBP002</b>	FD293	109	DISC 15	2	CFA327	52 516 0073
<b>FBP003</b>	FD427	120	DISC 26	6	CFA472	52 516 0223
<b>FBP004</b>	FD459	225 EBIKE		8	CFA633	52 516 0393
<b>FBP005</b>	FD451	119	DISC25	7		525160473
<b>FBP006</b>	FD436	124	DISC 30	9	CFA619	52 516 0343
<b>FBP009</b>	FD496	128		18	CFA734	52 516 0463
<b>FBP010</b>	FD469	126	DISC 32	17	CFA667	52 516 0433
<b>FBP012</b>	FD455	123	DISC 29	13	CFA616	525160383
<b>FBP013</b>	FD487	127	DISC 33	12	CFA660/4	525160441
<b>FBP016</b>	FD465	132		16	CFA647	
<b>FBP017</b>	FD466			20	CFA639	
<b>FBP018</b>	FD426		DISC 27	3	CFA493	52 516 0323
<b>FBP019</b>	FD531			42	CFA735	52 516 0473

**CENTER-LOCK, FBD\*\*\*\*CL**

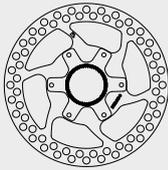
- Braking band manufactured in AISI420 high carbon steel for performance and durability
- Tempered throughout the material's thickness to ensure a minimum surface hardness of HRC35 throughout the disc's life
- Compatible with all brake pad types
- Center-lock made in Anodized Aluminium for reduced weight
- **Two designs available:**

■ **OFF-ROAD DESIGN**



- Braking band design balances performance, modulation capability and weight
- Engineered to expel dirt which keeps the pad contact area clean in muddy conditions. This means a more consistent braking efficiency across all conditions
- Air flow maximized to increase cooling and reduce the pad and disc operating temperatures

■ **ROAD DESIGN**



- Engineered to optimise the aerodynamic properties of the disc

**6-HOLES, FBD\*\*\*\*R**

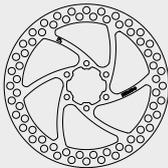
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■ **OFF-ROAD DESIGN**

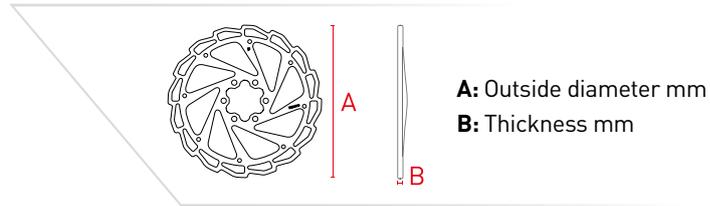


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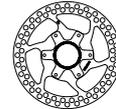
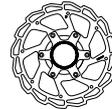
■ **ROAD DESIGN**



- Engineered to optimise the aerodynamic properties of the disc

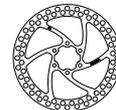
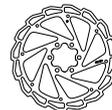


**CENTER-LOCK, FBD\*\*\*\*CL**



A - OUTSIDE DIAMETER mm	B - THICKNESS mm	OFF-ROAD DESIGN PART NUMBER	ROAD DESIGN PART NUMBER
140	1,8	FDB0001CL	FBD0014CL
160	1,8	FDB0002CL	FBD0012CL
180	1,8	FDB0003CL	
180	2,0	FDB0004CL	
203	2,0	FBD0005CL	

**6-HOLES, FBD\*\*\*\*R**



A - OUTSIDE DIAMETER mm	B - THICKNESS mm	OFF-ROAD DESIGN PART NUMBER	ROAD DESIGN PART NUMBER
140	1,8	FBD0006R	FBD0015R
160	1,8	FBD0007R	FBD0013R
180	1,8	FBD0008R	
180	2,0	FBD0009R	
203	2,0	FBD0010R	
220	2,0	FBD0011R	

Ferodo **brake fluids** are of Glycol-ether based composition. FSF (Superformula) has specifically been developed for motorsport.

## FBZ (DOT 5.1)



### RECOMMENDED FOR ROAD USE

#### TECHNICAL DETAILS:

- Dry boiling point: 270 °C
- Wet boiling point: 185°C
- Kinematic viscosity (Cst): 800 at -40 °C

#### MAIN FEATURES:

- Adheres to DOT 5.1 specification
- Very low viscosity means ideally suited for ABS / ESP braking systems
- Low corrosion
- Very low rubber swell
- Sizes available: FBZ025 (250 ml), FBZ050 (500 ml), FBZ100 (1 L), FBZ500 (5 L)

## FSF (SUPERFORMULA)



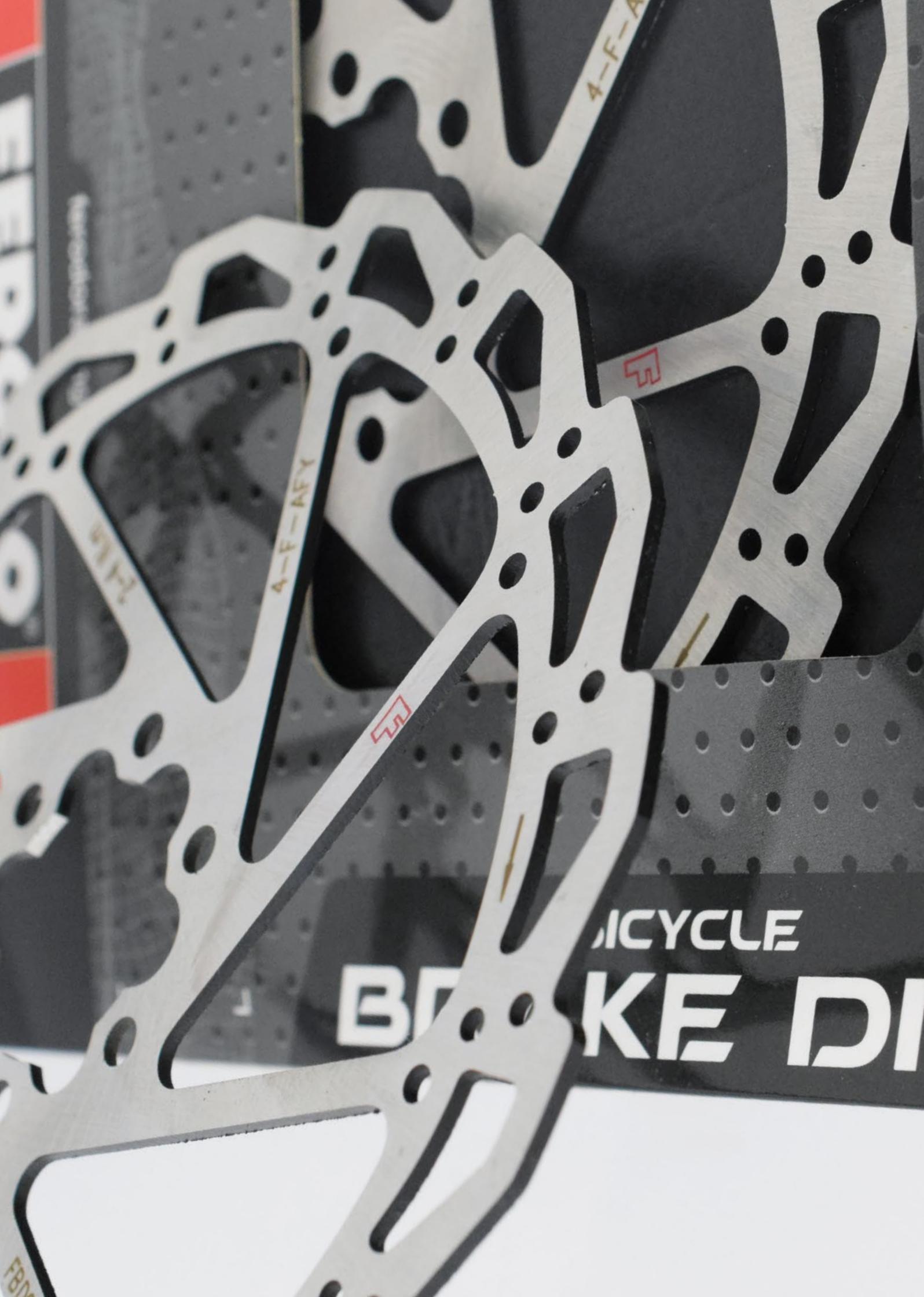
### RECOMMENDED FOR A RACE USE

#### TECHNICAL DETAILS:

- Dry boiling point: 328 °C
- Wet boiling point: 200°C
- Kinematic viscosity (Cst): 1500 at -40°C

#### MAIN FEATURES:

- Premium Product
- Exceptionally high wet and dry boiling points
- Very low corrosion, with additives to render more compatible with Mg components
- Low rubber swell
- Super-low viscosity for a race fluid of such high B.pt. (falls within DOT 4 road spec allowing road use)
- Super high lubricity: reduces clutch component wear
- Size available: FSF050 (500 ml)



4-F-AEY



4-F-AEY



MOTORCYCLE

BRAKE DISC

FB0



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