

**GOOSYNN**

# Ti-Fi TITANIUM FIBER SPOKE WHEELSETS COLLECTION

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Ti-Fi 绳辐条轮组



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## Brand Overview

## 品牌介绍

GOOSYNN 是一家自 2009 年起专注于高性能自行车零部件研发与制造的品牌。GOOSYNN 拥有自主花毂工厂,具备完整的结构设计与加工能力,并独立研发生产 Ti-Fi 绳辐条系统。我们与行业领先的碳纤维车圈 OEM 制造商保持长期合作,基于 GOOSYNN 对张力结构的理解,协同定制匹配的轮圈。

每一套 GOOSYNN 轮组,都是建立在结构协同理念之上,从组件匹配到系统张力平衡,构建出稳定、舒适、真实可感的骑行表现。

GOOSYNN has been dedicated to high-performance bicycle components since 2009. We operate our own hub factory and independently develop the Ti-Fi spoke system, while collaborating with leading carbon rim OEMs to deliver perfectly matched wheel systems.

Each GOOSYNN wheelset is engineered with structural synergy in mind, ensuring balanced tension, stability, and a precise, comfortable ride.

## Ti-Fi 绳辐条轮组

## Ti-Fi Rope Spoke Wheelset

Ti-Fi 轮组的舒适性,并非来自“柔软”,而是来自于:

- 结构级的弹性逻辑
- 组件级的协同反馈
- 系统级的张力闭环

辐条的回弹性,圈体的支撑性,花毂的锚固性,三者构成一个闭合系统——在动态负载下主动应对震动、控制结构微形变,并在极短时间内完成张力恢复。

The comfort of the Ti-Fi Wheelset does not come from being “soft,” but from:

- Structural-level elasticity logic
- Component-level synergistic feedback
- System-level tension loop

The resilience of the spokes, the support of the rim, and the anchoring of the hub together form the system—actively responding to vibrations under dynamic loads, controlling micro-deformations of the structure, and restoring tension in an instant.

视觉上,我们也以结构思维主导设计语言:

- 镂空烫金 LOGO 与 UD 碳纹呼应
- 全轮组比例协调、收紧自然
- 轻质细节中体现技术秩序感

Ti-Fi 轮组不是一次“组合”,而是一次系统性结构革新。

Visually, the design is guided by structural thinking:

- Hollow gold-foil logo with UD carbon texture
- Balanced, compact wheelset proportions
- Lightweight details expressing technical order

Ti-Fi wheelsets represent not an “assembly,” but a systemic structural innovation.



### 辐条

GOOSYNN 自主研发的 Ti-Fi 辐条,采用全球领先的高性能防弹纤维材料,具备极高的强度重量比、优异的抗疲劳性能及线性弹性响应特性。

#### 可控形变+张力回弹:

在高张力下,Ti-Fi 辐条能产生轻微可控的形变,并在受力终止后迅速回弹。这一机制显著改善骑乘舒适性,并维持轮组的整体动态稳定。

#### 钛合金端头系统:

GOOSYNN 同步开发了匹配该材料的精密钛合金端头,使其在轮组组装过程中具备高效的操作体验与长期维护的结构可靠性。

#### 生态性:

该复合材料具备优异的耐久性及可回收降解特性,符合高性能产品的可持续趋势。

Ti-Fi 不只是材料选择的变化,而是结构逻辑的重构。因此 GOOSYNN 为它重新设计了车圈、花毂的全部体系。

### Spoke

GOOSYNN's Ti-Fi spokes are crafted with high-performance ballistic fibers, delivering strength-to-weight ratio, fatigue resistance, and elastic response.

#### Controlled deformation + tension rebound:

Ti-Fi spokes flex under tension and rebound instantly, boosting comfort without sacrificing stability.

#### Titanium alloy nipple system:

GOOSYNN's precision titanium nipples ensure efficient assembly and lasting reliability.

#### Sustainability:

The composite offers durability and recyclability, supporting sustainable performance.

Ti-Fi is more than a material upgrade—it reshapes structural logic, driving a full rim and hub redesign.

柔性主角,引发结构革命

Flexible Key Component Driving Structural Revolution



\*Ti-Fi Spoke 技术受法律保护 | 专利号:ZL 2024 2 2085421.0

\*Legally Protected Ti-Fi Spoke Technology | Patent No.: ZL 2024 2 2085421.0

### 车圈

面对高张力辐条,传统钢条/碳条通用圈体的设计应力难以胜任。因此 GOOSYNN 从零开始,围绕 Ti-Fi 系统重构了车圈结构。

#### 全局堆叠设计:

圈体采用多层高强度 UD 碳布铺层策略,在整体结构层面提升横向与径向刚性,以匹配高张力环境下的形变量控制。

#### 辐孔加固结构:

每一个辐条孔位采用独立台阶加固层设计,防止在局部集中张力下出现微裂或倒角疲劳,确保长期张力均衡分布。

#### 张力均配架构:

结合绳辐条的受力特性,GOOSYNN 重新设定 ERD 参数与装配公差,使轮组在初次装配即具备结构上的张力自平衡效果。

#### 表面工艺:

免喷涂 UD 纹理展现碳布原生质感,减少树脂堆积与热压应力,提升结构完整性与视觉表现力。

这不仅是一个“兼容”Ti-Fi 的圈体,而是一个因 Ti-Fi 而进化的结构体。

### Rim

GOOSYNN has redesigned the rim structure from the ground up, purpose-built around the Ti-Fi system.

#### Comprehensive Layering Design:

The rim designs with multi-layer high-strength UD carbon fiber, enhances lateral and radial rigidity for controlled high-tension deformation.

#### Reinforced Spoke Hole Structure:

Each spoke hole has a reinforced step layer to prevent cracking and ensure long-term balanced tension.

#### Tension Equalization Architecture:

Recalibrated ERD and tolerances let GOOSYNN wheels achieve self-balancing tension from the first build.

#### Surface Craftsmanship:

UD finish exposes natural carbon weave, reducing resin and stress while enhancing strength and clarity.

This rim doesn't just fit Ti-Fi—it's evolved by Ti-Fi.



全结构加固,为柔性张力提供支撑

Reinforced for Flexible Tension

### 花毂

Ti-Fi 辐条的柔性回弹性, 必须依赖足够坚固稳定的固定点。花毂作为整个张力系统的锚点, 承担着从辐条传导来的全部载荷。因此 GOOSYNN 为此开发了全套私模花毂系统。

**私模设计, 结构重构:**

整个花毂架构围绕 Ti-Fi 系统受力模型进行建构, 不沿用任何传统模具。包括壳体截面、法兰定位、轴心支撑系统均为自定义开发。

**法兰强度优化:**

在受力集中区域(特别是驱动侧、制动侧法兰), 我们采用厚壁结构配合局部加强筋, 提升长期使用下的抗裂与张力保持能力。

**材料分工明确:**

壳体采用韧性优良的 6061-T6 铝合金, 轴心为 7075 材质, 塔基选用 7075 以提升抗剪性, 并保障重量控制。

**加工精度控制:**

工件最小公差控制在  $\pm 0.002\text{mm}$  以内, 确保每根 Ti-Fi 辐条的应力释放路径高度一致, 避免微位移造成局部松动或应力不均。

Ti-Fi 系统不是让花毂更轻, 而是让它更可靠。我们为“柔”赋予了“锚”, 才构成真正可控的张力系统。

### Hub

The flexible rebound of Ti-Fi spokes demands a hub strong enough to anchor the system. GOOSYNN's proprietary hub absorbs and distributes every force, purpose-built for Ti-Fi.

**Proprietary reengineered design:**

The entire hub was rebuilt for Ti-Fi. This includes custom shell, flange, and axle support systems.

**Flange strength optimization:**

Reinforced thick-wall ribs at high-stress zones enhance crack resistance and tension stability.

**Material specialization:**

The hub uses 6061-T6 shell, 7075 axle, and 7075 base for strength and weight control.

**Precision machining:**

All contact surfaces are held within  $\pm 0.002\text{ mm}$  to ensure uniform stress paths and prevent uneven tension.

Ti-Fi hubs prioritize reliability over weight, anchoring flexibility for a fully controllable tension system.



刚性锚点, 构成张力闭环的核心

Rigid Anchor Forming the Core of the Tension Closed Loop

净重 (不含真空胎垫和气嘴)  
Weight Pair (Without Tubeless Tape&Valve)

应用场景  
Application

框高  
Depth

购买建议

Purchase Recommendation



### Ti-Fi R30 Pro

1170g

长途/耐力/爬坡  
Road Race

30mm

专为高山、高原、起伏地形而生，具备出色的抗侧风性能，轻量顺应性强，低框高设计带来灵敏的踩踏反馈，优化空气动力学表现，视觉更一体。

Designed for mountains, highlands, and rolling terrain. Offers excellent crosswind stability, lightweight compliance, low-profile rims for responsive pedaling, and optimized aerodynamics.



### Ti-Fi R50 Pro

1270g

公路竞赛  
Road Race

50mm

50mm 高框设计，显著提升空气动力学性能与高速巡航表现。优化辐条角度+更短辐条组合，带来更强刚性输出。适配范围广，无论日常通勤、组装瓜车还是多路况使用，皆能胜任，是一款兼顾舒适性与耐用性的全能型公路轮组。

50mm rim height enhances aerodynamics and high-speed cruising. Optimized spoke angles and shorter spokes improve lateral stiffness. Versatile for commuting, racing, or mixed-road use, balancing comfort and durability.



### Ti-Fi G45 Pro

1320g

瓜车竞赛  
Gravel Race

45mm

专为非铺装路面打造，无论是砂石路、林道还是乡间小道，都能提供稳固支撑与良好骑行体验。是一款专为 Gravel 环境设计的专业级瓜车轮组。无论是竞赛还是日常探险骑行，都能提供优异的稳定性和舒适性。

Purpose-built for gravel and unpaved roads. Provides stable support and comfortable riding on dirt paths, forest trails, or country roads. Ideal for both racing and adventure riding.

\*Ti-Fi 绳辐条轮组：目前有三种款式：R30 Pro / R50 Pro / G45 Pro ;所有型号生产周期为 14-20 个工作日。如需其他轮圈宽度或高度，请联系我们获取详细规格。

\*Ti-Fi Spoke Wheelsets: Available in R30 Pro / R50 Pro / G45 Pro. Production timeline: 14-20 business days. For other rim sizes, please contact us for details.



车架:Cinelli XCR  
 套件:Campagnolo Ekar  
 轮组:GOOSYNN TI-FI R30 PRO

# Ti-Fi R30 Pro



轮组 Wheelset	外胎及胎压建议 Tire & Tire Pressure	30C-50C 30C≤70psi	尺寸 Wheel Size	700c				
轮圈 Rim	材料 Depth	Toray T800 & T1000	外宽 External Width	34mm	内宽 Internal Width	25mm		
	圈重/公差 Weight/Tolerance	365 +/-10g	车手重量限制 Max Weight	110kg	外观 Finishing	免涂装 Coating Free		
	孔数 Hole Count	21H/24H (前/后) (Front/Rear)	轮胎类型 Tyre Type	无内胎准备 Tubeless Ready				
辐条 Spoke	轮缘 Bead Type	钩边 Hooked	刹车 Braking	碟刹 Disc	编织方式 Weave	单向碳纤维 UD Carbon		
	辐条型号 Spoke Offering	Ti-Fi 1	辐条重 Spoke Weight	2.2g	线径 Wire Diameter	1.6mm		
	材料 Material	钛合金+高分子纤维 Titanium+Polymer Fiber		辐条帽 Nipples	黑色铝合金帽头(0.4g*45个) Aluminium Black (0.4g*45pcs)			
	交叉方式 Lacing	前:三交叉/放射状 后:二交叉/三交叉 Front : 3x / radial Rear: 2x / 3x		连接方式 External Width	直拉 Straight Pull			
花毂 Hub	花毂型号 Hubs Offering	Race Pro	花毂重 Hub Weight	320g	孔径 Hole Diameter	4.0mm	塔基 Freehub	HG/XDR/N3W
	轴心尺寸 Axle Size	12*100/142mm (前/后) (Front/Rear)		培林 Bearing	TPI 钢珠培林 *6 TPI Steel *6			

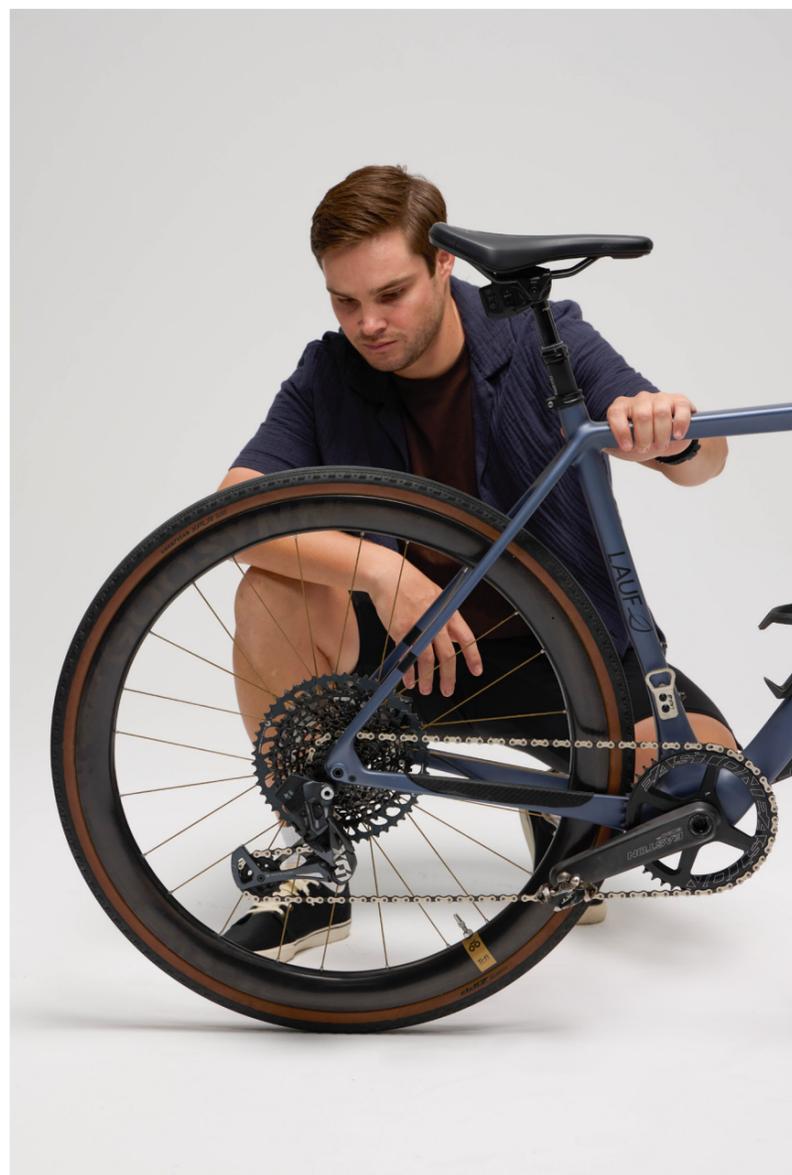


车架:Colnago V4RS  
 套件:Shimano R8170  
 轮组:GOOSYNN TI-FI R50 PRO

# Ti-Fi R50 Pro



轮组 Wheelset	外胎及胎压建议 Tire & Tire Pressure	30C-50C 30C≤70psi	尺寸 Wheel Size	700c				
轮圈 Rim	材料 Depth	Toray T800 & T1000	外宽 External Width	34mm	内宽 Internal Width	25mm		
	圈重/公差 Weight/Tolerance	415 +/-15g	车手重量限制 Max Weight	110kg	外观 Finishing	免涂装 Coating Free		
	孔数 Hole Count	21H/24H (前/后) (Front/Rear)	轮胎类型 Tyre Type	无内胎准备 Tubeless Ready				
辐条 Spoke	轮缘 Bead Type	钩边 Hooked	刹车 Braking	碟刹 Disc	编织方式 Weave	单向碳纤维 UD Carbon		
	辐条型号 Spoke Offering	Ti-Fi 1	辐条重 Spoke Weight	2.2g	线径 Wire Diameter	1.6mm		
	材料 Material	钛合金+高分子纤维 Titanium+Polymer Fiber		辐条帽 Nipples	黑色铝合金帽头(0.4g*45个) Aluminium Black (0.4g*45pcs)			
	交叉方式 Lacing	前:三交叉/放射状 后:二交叉/三交叉 Front : 3x / radial Rear: 2x / 3x		连接方式 External Width	直拉 Straight Pull			
花毂 Hub	花毂型号 Hubs Offering	Race Pro	花毂重 Hub Weight	320g	孔径 Hole Diameter	4.0mm	塔基 Freehub	HG/XDR/N3W
	轴心尺寸 Axle Size	12*100/142mm (前/后) (Front/Rear)		培林 Bearing	TPI 钢珠培林 *6 TPI Steel *6			



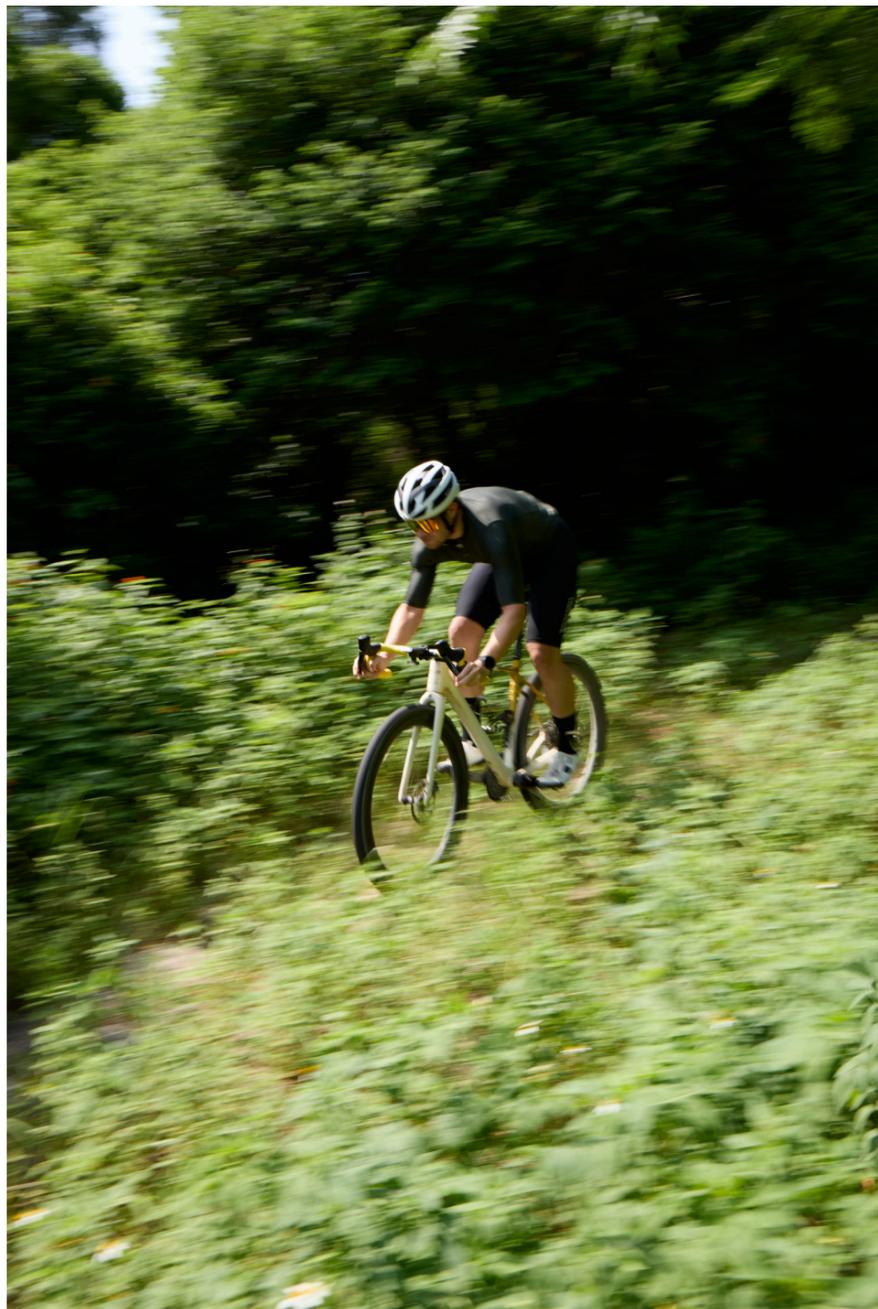
车架: Lauf Seigla  
 套件: Sram XO1  
 轮组: GOOSYNN TI-FI G45 PRO

# Ti-Fi G45 Pro



轮组 Wheelset	外胎及胎压建议 Tire & Tire Pressure	35C~70C 40C≤55psi	尺寸 Wheel Size	700c		
轮圈 Rim	材料 Depth	Toray T800 & T1000	外宽 External Width	40mm	内宽 Internal Width	32mm
	圈重/公差 Weight/Tolerance	440 +/-15g	车手重量限制 Max Weight	110kg	外观 Finishing	免涂装 Coating Free
	孔数 Hole Count	21H/24H (前/后) (Front/Rear)	轮胎类型 Tyre Type	无内胎准备 Tubeless Ready		
辐条 Spoke	轮缘 Bead Type	钩边 Hooked	刹车 Braking	碟刹 Disc	编织方式 Weave	单向碳纤维 UD Carbon
	辐条型号 Spoke Offering	Ti-Fi 1	辐条重 Spoke Weight	2.2g	线径 Wire Diameter	1.6mm
	材料 Material	钛合金+高分子纤维 Titanium+Polymer Fiber		辐条帽 Nipples	黑色铝合金帽头(0.4g*45个) Aluminium Black (0.4g*45pcs)	
	交叉方式 Lacing	前:三交叉/放射状 后:二交叉/三交叉 Front : 3x / radial Rear: 2x / 3x		连接方式 External Width	直拉 Straight Pull	
花毂 Hub	花毂型号 Hubs Offering	Race Pro	花毂重 Hub Weight	320g	孔径 Hole Diameter	4.0mm
	轴心尺寸 Axle Size	12*100/142mm (前/后) (Front/Rear)		培林 Bearing	TPI 钢珠培林 *6 TPI Steel *6	
	塔基 Freehub	HG/XDR/N3W/MS				

车架:Voice G major  
套件:Sram Force XPLR  
轮组:GOOSYNN Ti-Fi G45 PRO



结构减震,顺势而行

鹅卵石路、起伏山道、下坡收煞, Ti-Fi 在冲击来临前先“松”一瞬,再回弹复位,帮你缓冲每一脚的路感疲劳。

Damping by design, harmony in motion.

Cobblestones, climbs, descents — Ti-Fi softens on impact, then rebounds to ease road fatigue.





车架: Lauf Seigla  
 套件: Sram XO1  
 轮组: GOOSYNN Ti-Fi G45 PRO

### 精准响应, 不软不飘

高强度芳纶绳辐条在高张力下始终紧绷, 踩踏时传力清晰; 在冲击来临时略微吸收后快速回弹, 兼顾反馈与效率。

Precise. Firm. Stable.

High-strength aramid spokes stay tight for crisp power transfer, softening impacts with quick rebound for both feedback and efficiency.



车架: Cinelli XCR  
 套件: Campagnolo Ekar  
 轮组: GOOSYNN Ti-Fi R30 PRO

### 回弹真实, 舒适有感

不是阻尼, 不靠厚重, 舒适来自结构本身的“可控回弹”。你仍感知路面, 却不会一寸不漏地吸下所有冲击。

True rebound, felt comfort.

Controlled rebound for real comfort—you feel the road, not every jolt.

## Custom Services

## 定制服务

辐条颜色: 本金色/黑色, 更多颜色定制方案同步开发中。

\*如客户选择 OEM 合作模式 (适用于具备一定起订量的订单), 我们将提供包括 LOGO、配色方案及包装设计在内的多项个性化定制服务, 以全面满足客户的品牌化需求。

Spoke color: Gold / Black, More custom color options under development.

\*For customers choosing the OEM collaboration model (applicable to orders meeting the minimum quantity), we offer a range of personalized customization options, including logo, color scheme, and packaging design, to fully meet your branding needs.



车架: Cervelo S5  
 套件: Shimano R9270p  
 轮组: GOOSYNN Ti-Fi R60 PRO



为保持最佳性能, 建议每12个月进行一次常规维护, 包括轮组偏摆调整、培林润滑等。您可以将轮组寄回我们, 也可就近前往合作的车店进行免费检查与调整服务。

我们致力于为您打造持久耐用的轮组, 因此提供完善的售后保障: 轮组享五年质保, 培林质保一年。

To maintain optimal performance, GOOSYNN recommends routine maintenance every 12 months, including wheel trueness adjustments and bearing lubrication. You can either send the wheelset back to GOOSYNN or visit the local professional bike shop for free inspection and adjustment services.

We are committed to providing durable and long-lasting wheelsets, which is why we offer comprehensive after-sales support: a five-year warranty on the wheelset and a one-year warranty on the bearings.

Instagram @goosynn



小红书 @goosynn  
RedNote



微信公众号 GOOSYNN毅行



如需了解更多信息或定制服务, 欢迎随时与我们联系。

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