Handcrafted Wheels

WHEELWORKS

LYALL BAY

CARBON RIMS REQUIRE DIFFERENT BRAKEPADS. WHY?

Abrasiveness: Carbon-specific pads are softer so they won't wear into the rim.

Heat management: Your brakes work by converting kinetic energy (you moving forward) into heat energy. Aluminium is a fantastic conductor of heat which means it's good at dissipating and getting rid of it, which results in good brake performance. Carbon is a very poor conductor of heat, so carbon-specific brakepads are needed to control the amount of heat buildup, and pull it away from the rim.

What this means is that you'll need to fit a pair of carbon-specific brakepads and use them only on your carbon rims. Because these pads are very soft they'll wear out quickly on aluminium rims, and you run the risk of small aluminium shards getting stuck in the brakepad which will then damage your carbon rims.

SUGGESTED BRAKEPADS

Your wheels include a pair of carbon-specific brakepads designed for these rims. Carbon-specific pads are much softer than normal brakepads and will not wear into the rim. It's very important that you use only carbon-specific brakepads on these rims.

Brakepad life is very good but replacements for Shimano, SRAM or Campagnolo brakes are available from Wheelworks when they've worn out. The brakepads are considered worn-out when the groves are no longer visible. There is also a 'limit' line on the brakepad.

Using different pads will effect how the brakes feel through the brake lever as well as effecting performance in both wet and dry conditions. If you're experimenting with different brakepads please be sure to test them in both the dry and wet.

You must use the SwissStop Black Prince brakepads with your Rail rims.

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CARBON BRAKING PERFORMANCE.

In the early days of carbon rims the brake performance was substandard, especially in the wet. Modern high-quality rims have addressed this problem and are as good as aluminium rims in both the wet and dry.

The first use of your fancy new carbon wheels may give a lackluster brake performance. As the brakes are used small amounts of rubber are deposited on the rim, and this increases the brake performance. For this reason it's best not to aggressively clean the brake track of a carbon rim - instead just wash the bike as you normally would.

In general the feel of carbon brakes is quite different to aluminium - the brakes come on slower and feel less grabby as they're applied. This doesn't mean the brakes aren't as good but it may require you to recalibrate your brain as to what is expected.

SQUEALING BRAKES

Squealing on both aluminium and carbon rims is generally a result of incorrect pad 'toe.' The front of the brakepad needs to contact the rim first - this is called toe.

The easiest way to toe the pads is to loosen the brake bolt and use the brake lever to squeeze a business or credit card between the pad and the rim. While still squeezing the brake lever tighten the brake bolt.

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DRAGGING THE BRAKES

As we talked about above carbon rims aren't as good at dissipating heat as their aluminium counterparts. Dragging the brakes on a long downhill is bad for two reasons: First, all that heat produced by the brakes warms the air in the tyre causing it to expand and the tyre pressure to increase. In extreme cases the tyre can blow off the rim. Second, the heat in the rim can cause the carbon to melt. Needless to say both of these are things you want to avoid.

How? By not dragging the brakes! Either use the brakes or let go of them. If you do need to use the brakes to maintain speed then alternate between the front and rear brakes - use one brake hard with the other one completely off for a few seconds, then swap. This allows each rim to shed it's heat and cool down. This isn't as scary as it sounds but it is the one small trade-off for having a wheelset which is lighter, stiffer, and more aerodynamic than an aluminium rim could provide.

This is a very rare event that is even more unlikely to occur if the correct tyre pressures are used - Please see the information on Tyre Pressures.