

Carbon Ceramic Brake Wear Due To Track Use

Anthony Howarth 24th March 2018

Thoughts on 650S Carbon Discs please guys n gals, seems I've toasted mine in a morning session at Silverstone on Tuesday, brakes are really poor now, pedal is firm but requires a lot of pressure to get the car to stop and there is a slight grumbling noise from the brakes when applied... anyone else come across this?



650S CARBON DISKS	
24.03.18	
NSF	OSF
min THICK = 36.5mm	35.5mm
measured = 36.22mm	36.03mm
min weight = 5926g	5889g
measured = 6045g	5994g
NSR	OSR
min THICK = 33.5mm	33.5mm
measured = 39.02mm	34.19mm
min weight = 4898g	4938g
measured = 4988g	5014g

So options in this situation appear to be quite vast, more so than first thought:

1. Replace with Movit rotors. A true performance upgrade, with take use on track and tried and tested. Around £10k, but dealer won't like them at trade in time, however Movit offer a buy back service if you end up with no use for them at around 60% of the cost back to you.
2. Replace with standard McLaren discs at McLaren. Cost is circa £12k, and you end up with an identical product with identical limitations and risk of happening again if you track the car.
3. Replace rotors with Sicom brand new items €2000 per disc and reuse your Mc hats with new bobbins and pins, circa £6992 at today's exchange rate.
4. Replace with Corvette Z06/ZR1 Carbon Discs, part numbers:
GM 84023643 front
GM 84023644 rears
ACDelco Parts Numbers
177-1120 and 117-1121 respectively.

These are exactly the same Brembo Carbon Ceramic Discs as McLaren use, absolutely identical, only the aluminium 'hat part' that bolts it to the wheel is different, so need to swap them over with your current McLaren ones and use the new bobbins and pins and torque correctly. [Mark Hosken](#) at Backdraft has done these in the past if you want to use someone who is ofeit with the process, no doubt [John Thorne](#) is equally capable. Cost of each front rotor in the states currently is \$1250 and rears are \$1350. If you can get them here as a gift and thus no tax and get the local 6% sales tax refunded, your looking at a cost of £3454 at today's 1.414 exchange rate for brand new discs that even McLaren will never know they are anything other than McLaren, but you end up with the same disc with same properties as Chocolate when used on track (stole that comment, can't remember who said it tho)

5. Send discs to www.rebrake.de and have your current McLaren discs resurfaced. This sounds like a cheap out, but it is actually a performance enhancement over the standard Brembo compressed fibre carbon ceramic disc that literally fall apart when hot as in basic terms, the disc is manufactured from compressed flakes or fibres of carbon, much like OSB board used for boarding widows up after a break in. The new process sinters/bonds a new 'long carbon weave' surface to the disc that is far more impervious to heat and the rights of braking and can withstand far higher sustained temperatures too. Standard discs from the research I've done at good to about 1100 degrees Celsius, carbon weave discs (even just the surface if the core still has enough weight left) can withstand 1500 degrees Celsius. A marked upgrade in terms of performance and longevity. Cost is around £650 per disc, so £2600 end price. Turn around is the issue here I think, am waiting to hear back and ill update. But with this, the disc will appear different to standard, they actually look like 'disc porn' with the cross hatching to be fair, like more modern carbon ceramics are now, so McLaren will have an issue come trade in time or if yo have a warranty inspection to apply an extended warranty.

6. Sicom offer a resurfacing option, like rebrake.de but they have currently removed it from sale as they are currently expanding and are upgrading their technology to state of the art process's that are cutting edge in terms of disc performance and cost/time etc, so when this facility is online, it should be the more cost effective, performance enhancing and quickest if you're looking for an upgrade over standard to do track work.

7. If you want to be able to track your car and also want to protect your carbon discs, then you can opt to go with Paul Jennings steel brake conversion which uses your current Caliper, but comes with a set of new steel discs and 'aluminium hats' and pads for £3350 I do believe. <https://www.pistonheads.com/.../mclaren-12c-650.../8101749>

This is a simple bolt on, bolt off solution, where you could remove your perfectly serviceable carbon ceramic chocolate discs and shelve them for when you sell the car. Put Paul's solution on and enjoy a better pedal feel and braking improvement for the time you have the car abs do as many track days as hard as you like and then revert back to standard when you are finished and sell Paul's used steel kit on for circa £1500-£2000 id say afterwards, so as long as your carbon discs are serviceable, it would turn out to be by far the most cost effective and performance enhancing and cheapest to run option available. (New pads are like £140 and discs are like £197 iirc) but you would do away with the look of the carbon disc.

Or, you could have a set of Paul's steel conversion disc kit for when you do trackdays and it's like 2hrs to do the swap as part of a pre and post trackday maintenance?? Good option if you want to track your car, as then the carbons are perfectly suited to the road and the steel discs are perfectly suited to the track!

So plenty of options and not just throw £10,000's at McLaren, depending on what you want to achieve!

Edit:

There is also the option of using Surface Transforms Ltd here in the U.K., I've emailed them, will report back.

Search in our Facebook group under #CCBREFURB for the full thread.