

A silver car is shown from the front right corner, parked on a dark asphalt track. In the background, there are several red plastic safety barriers on a grassy area. A person in a blue shirt and orange vest is visible in the distance. The overall scene is outdoors with green foliage in the background.

TESTED

UPGRADED


BUSHES

Can simply fitting upgraded suspension bushes to your car significantly improve the handling? We decided to put it to the test...

In a world of shiny engine components and alloy wheels, small chunks of rubber are not the sexiest upgrade in the world, but swapping your OE suspension bushes to stiffer polyurethane items could be one of the best upgrades you could make to improve your car's handling.

Bushes are pieces of rubber between the various joints and mounts of a car, designed to hold things in place, while giving a

little play to remove harshness and vibration, with your engine, gearbox, subframe and – most importantly – suspension components all being fitted with them. Unfortunately they are often a little too soft for high performance and track day use, and just as importantly they wear out over the years. So a standard suspension bush with even 50,000 miles on it may well be far slacker than intended, leading to poor suspension and steering response.

On a racecar, most of these joints are replaced with solid items, but these are incredibly harsh and often wear fast, so the ideal setup for a road car is upgraded bushes, usually made of polyurethane, which are stiffer than standard and harder wearing, but not so stiff they totally ruin the car's ride. They are relatively cheap to buy and, in theory, they should make a big difference. But in reality are they really worth the effort to fit them? 

“Crisp turn-in and more overall feel; the TT felt like a different car. It was also **2sec a lap quicker**”



THE TEST

Quite simple really: test the TT with the standard soft rubber suspension bushes on road and around the Brunters circuit, then take it to TTS Roadsport to have the bushes replaced with upgraded Polyurethane items from SuperPro. Then head back to Brunters and once again take the car around the circuit against the clock to see if there's any improvement. We were also interested in how the car felt during every day conditions, so we backed up the track test with a two-hour test drive on some twisty A and B-roads.



Above Dav puts the TT through its paces on track at Brunters

THE CAR

Our faithful Audi TT 225 is the test car for this feature, and an ideal one at that. With all the other main suspension upgrades completed on the car, (Coilovers, uprated anti-roll bars, geometry professionally setup) the standard 125,000-mile rubber bushes are the weakest link. So if the uprated SuperPro bushes make a real difference, our well-used TT will certainly show it.

THE TRACK

We chose our regular 'short course' at Bruntingthorpe Proving Ground to test the TT, as its combination of fast and slow corners, and especially the tight left-right-left-right section should show any improvements the bushes may give. If there's any benefit to stability under braking the high speed stop at the end of the main straight should show that too.

TEST 1

Before fitting

Although the suspension and anti-roll bar upgrades have already transformed the TT from its wallowy understeering standard form, to something that is pretty capable on the track at Bruners, as our best time of 1min 35sec proves, you still feel a little detached from the car when behind the wheel. The car doesn't feel as fast as the lap times suggest, and despite all of its cornering grip it still feels a little loose. And the lack of immediate steering response, we suspect, is at least partially down to the soft and probably worn

standard suspension bushes. This slightly detached and loose feeling also meant the lap times were not as consistent as we might have expected, as sometimes you almost had to guess what the wheels were doing. Similarly on road, the TT felt a bit sloppy and uncommunicative. This would hopefully be resolved with the new uprated bushes.

**Fastest lap:
1min 35sec**



The TT felt good on track, but we thought there was more to come

Fitting the bushes

Although poly bushes are relatively cheap to buy, fitting can be expensive because while it's not a complex job, it is labour intensive. Sometimes specialist equipment is needed to get particularly stubborn bushes in and out, which is why it's usually best to get them done by a fully equipped garage. Because of this we enlisted the help of VAG tuning experts, TTS Roadsport as they do this kind of upgrade day in day out, and are used to dealing with any

problems that they might encounter. TTS Roadsport tell customers to allow a day and a half for a full set. As the suspension is effectively coming off the car, the geometry obviously needs to be reset once the new bushes are in place. As most cars tend to be somewhat out from normal wear and tear, we can't emphasise enough how much of a difference this stage makes. TTS Roadsport have a full laser alignment rig and can set up any make of car, not just VAGs.



Without bushes, lots of vibration would be transferred to the car

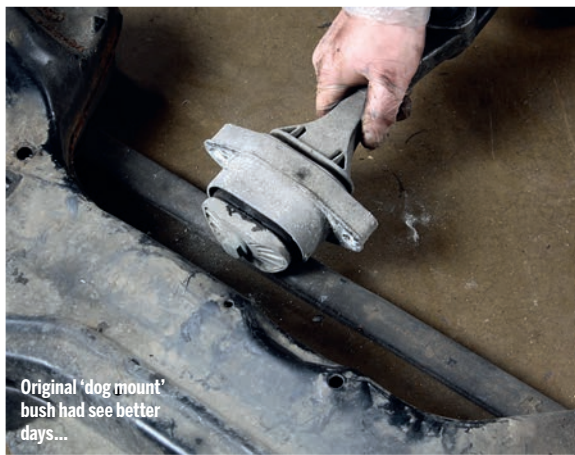


Above Our SuperPro bush kit was a straight swap

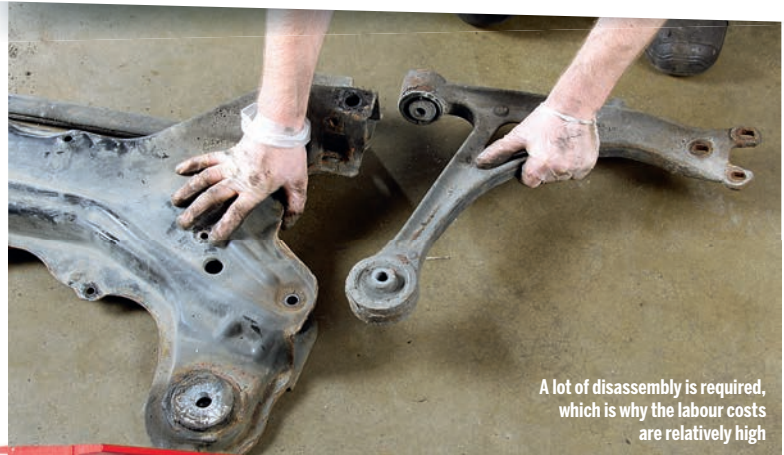
Up-rated Bushes



Steering rack bush is lubed up before fitment



Original 'dog mount' bush had see better days...



A lot of disassembly is required, which is why the labour costs are relatively high



Not a tricky job, but labour intensive



Pressing bushes into place is generally best left to the pros

Fitting the Bushes continued



FITTING BREAKDOWN

Wishbones	2 hours labour
Anti roll bars	2.5 hours labour
2 x dogbones	1 hour labour
Rear tie arms	2 hours
Rear toe bushes	1.5
Steering rack bush	1 (on its own)
Total – 10 hours labour, plus alignment	

Full set of SuperPro bushes therefore £569.33 including labour.



TEST 2

After fitting

From the first time I turned a corner on the road the difference in the immediate steering response was huge, with the car feeling sharper and more alive from the start; more like a brand new hot hatch than a nine-year old high-mile cruiser. The car feels more settled too, with a better seat of the pants feel, whereas before the flex in the standard bushes made for slightly unpredictable

handling at times. On the track the effect is magnified the harder you push the car, and it feels far more predictable, allowing you to place the car exactly where you want it time and time again. And the lap times were far more consistent than with the standard bushes fitted. The fastest lap time was 2secs faster and so much more fun, a great improvement in anyone's book. In fact we were so impressed with the

improvements that the main limiting factor to putting in even faster laps was the brakes and the slippery leather seats! Stronger brakes and a decent bucket seat would have helped significantly here.

Fastest lap:
1min 33sec

Below The TT felt like a different car



“More precise turn-in and communicative feel – impressive stuff”



CONCLUSION

Cheers to

▶ SuperPro
www.superpro.eu.com

▶ Dave, Sean and the team
at TTS Roadsport
www.ttsroadsport.co.uk



When it comes to uprated components polyurethane bushes don't have the wow factor of big brakes or multi-adjustable coilovers, but don't let that fool you. Poly bushes can transform the handling of your car. OEM items are designed to a budget and with a certain amount of 'comfort' built in, so even when new, they're going to be a compromise. But with a car that's done a few miles (and likely as not been driven quite hard), the effects are magnified. This was certainly the case with our TT. Even though it's fitted with coilovers and uprated ARBs it felt 'loose' – with a vague turn in on corners. Rapid changes in direction unsettled the car and it skipped about under heavy braking. However, with the SuperPro bushes,

it was a different story. Turn in was crisp and direct with an overall tight feel to the chassis and less play. It felt like a new car. The only downside is the cost – £569 for the full set fitted may sound a lot, but if you're serious about creating the best possible handling car, it makes sense, especially when other uprated components are to be fitted. Plus you don't need to go for the whole set like we did. You could concentrate on the major bushes first as these will make the biggest difference. While fitting a car with expensive coilovers and ARBs will improve handling no end, your old bushes will always be the weak link in the chain. So it's something to seriously consider if you're upgrading other components – especially on an older or high mile car. **Redline**

Above It's not a quick, or cheap job, but it is very, very effective



TTS ROADSPORT

Located on the outskirts of Bedford, TTS Roadsport specialise in VAG cars, offering everything from servicing to major tuning upgrades. They also offer a full suspension set up facilities including laser alignment service for any car and their service is second to none. Contact them on 01234 855 555 or go to www.ttsroadsport.co.uk.

Below We tested the TT on a variety of roads and were very impressed

