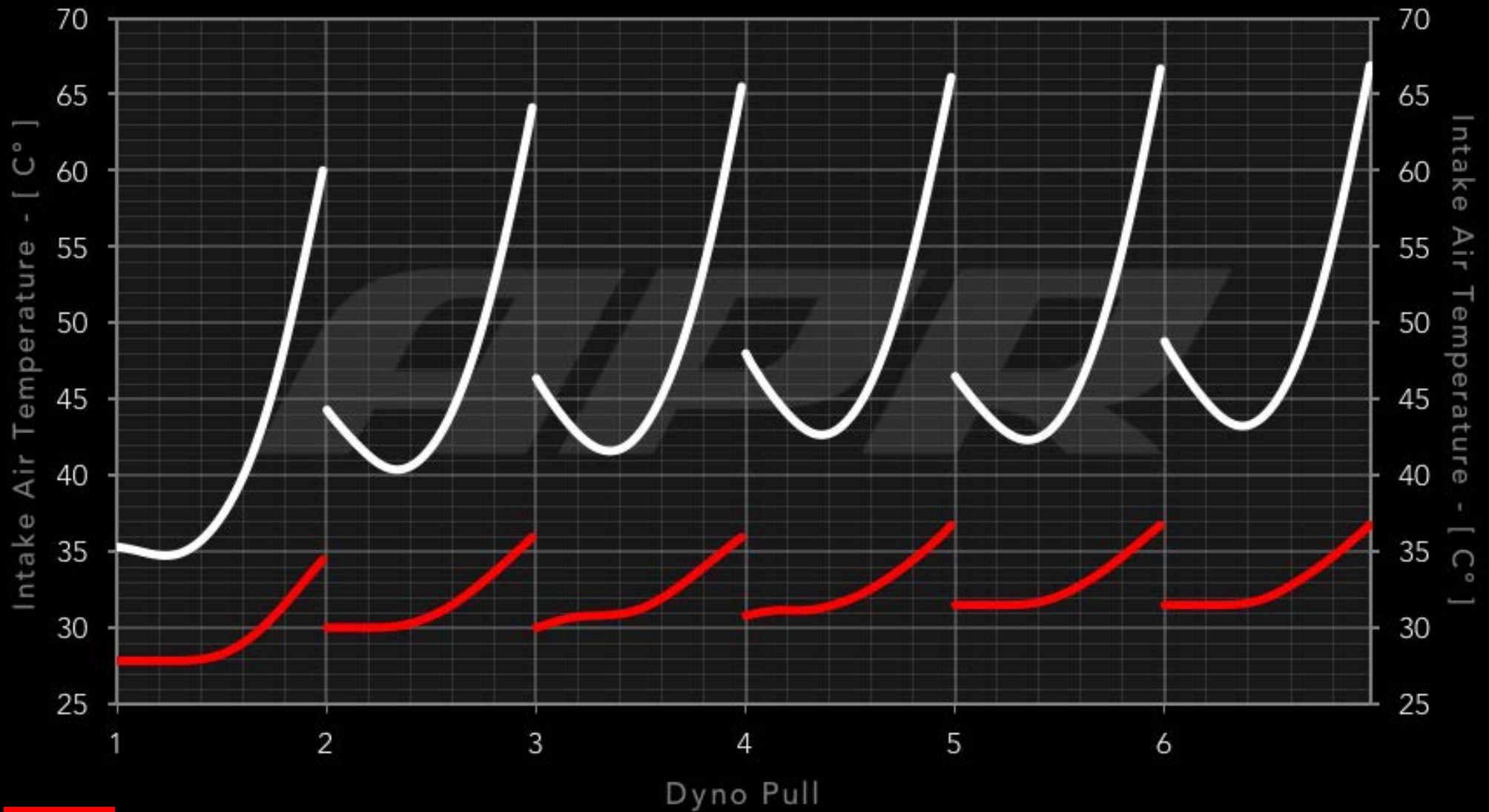
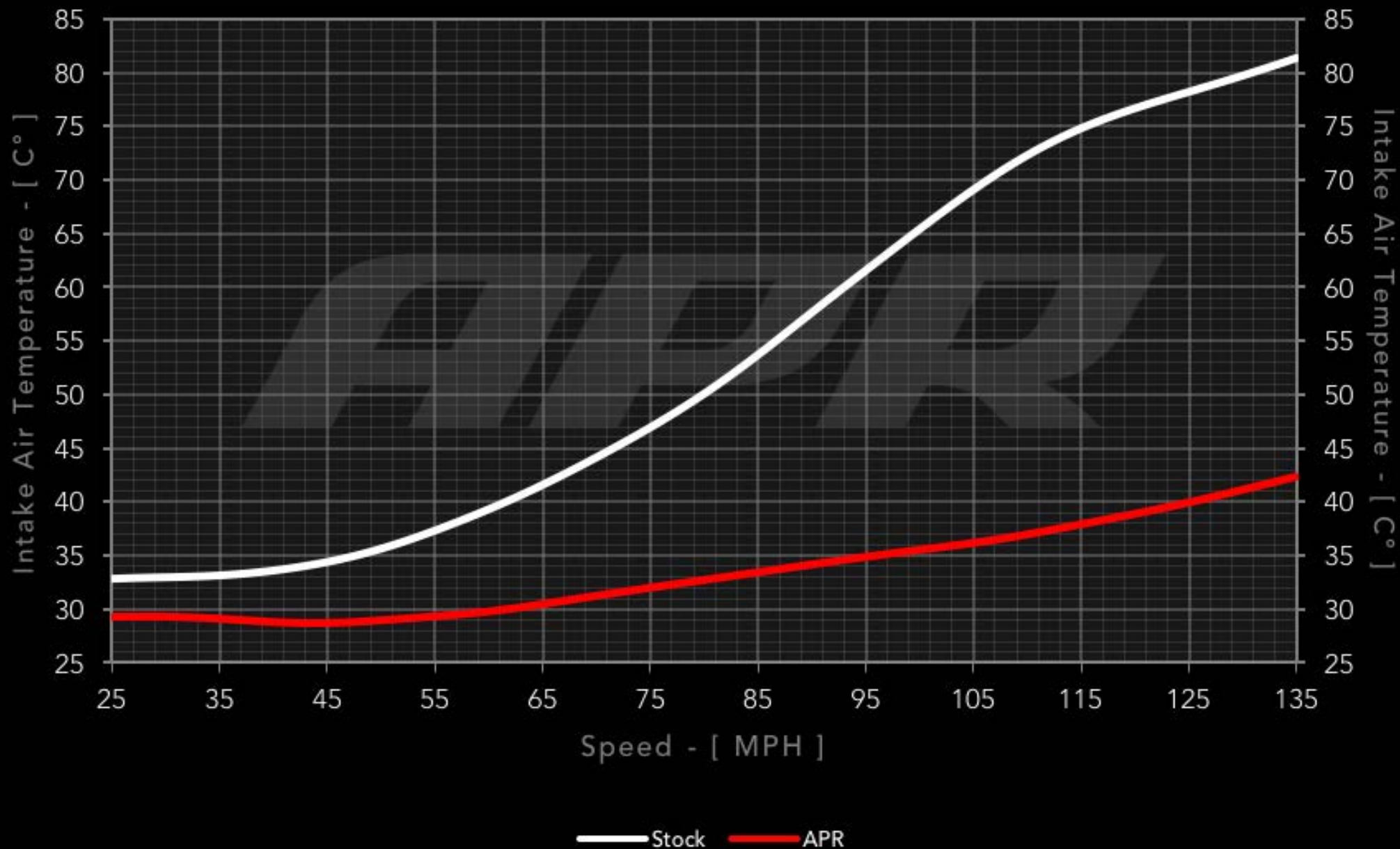


### 3.0 TFSI (EA839) S4/S5 (B9) APR Intercooler vs Stock Intercooler



— Stock — APR

### 3.0 TFSI (EA839) S4/S5 (B9) APR Intercooler vs Stock Intercooler

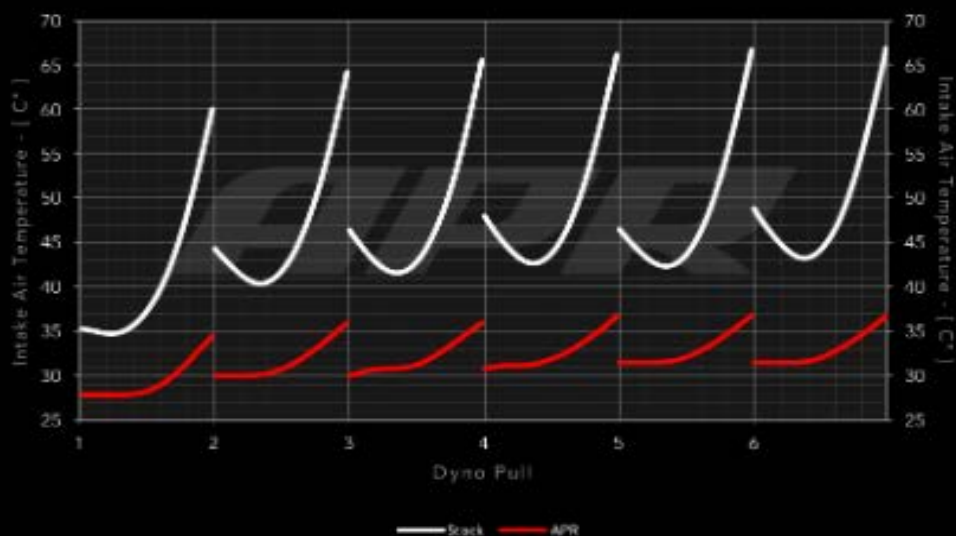




## Testing

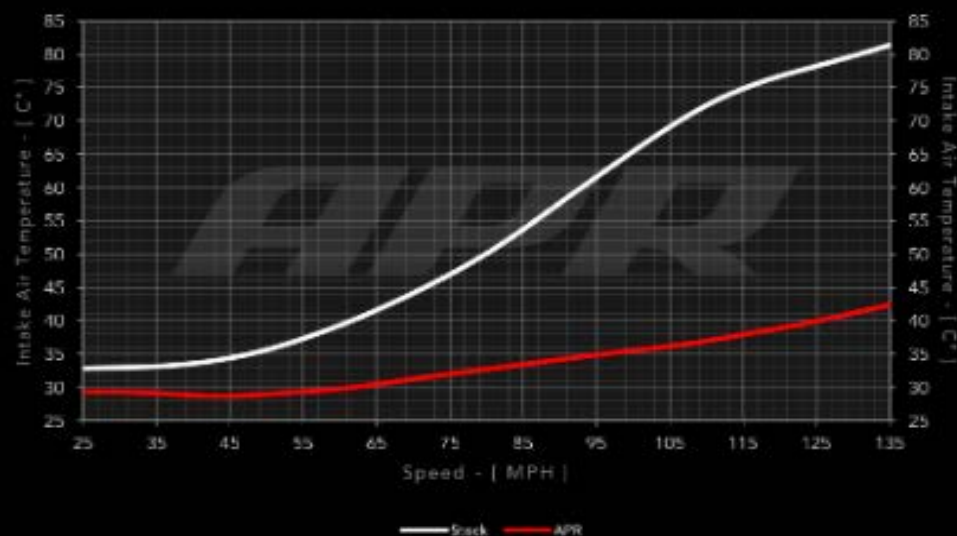
APR's engineers tested each intercooler in a multitude of tests to show the impact the APR intercooler has on intake air temperature. The following tests were conducted with a 2017 S4 using the stock ECU calibration on 93 octane fuel and no other modifications. Ambient conditions during the stock intercooler tests were 72.8°F and 98.4 kPa with 78.7% relative humidity. Conditions were similar later in the day during the APR Intercooler testing with 78.4°F and 98.5 KPa with 62.8% relative humidity. This gave the APR Intercooler no added advantage over the stock system during the tests.

3.0 TFSI (EA839) S4/S5 (B9)  
APR Intercooler vs Stock Intercooler



First, six back-to-back dyno pulls were conducted with each intercooler. Each run was conducted in 4th gear, from idle to redline, with a cool down between runs. The stock intercooler failed to combat rising IAT's and quickly exhibited power-robbing heat soak. IAT's started at 35°C and quickly rose to 60°C by the end of the first dyno pull. This trend continued with the final dyno pull reaching a staggering 67°C! In contrast, the APR Intercooler only reached 34°C by the end of the first dyno pull. It was then able to continue rejecting heat, only reaching 36°C by the end of the final dyno pull. The APR Intercooler performed better after 6 back-to-back dyno pulls than the factory intercooler did on it's very first dyno pull.

3.0 TFSI (EA839) S4/S5 (B9)  
APR Intercooler vs Stock Intercooler



Next we tested a 10-135 second sprint through the gears. With the factory intercooler, IAT quickly rose from a starting temperature of 32°C to a blistering 81°C! It was so bad, we had to abort the test as we felt it was too dangerous to continue further. However, as expected, the APR intercooler handled IAT's extremely well. With a starting temperature of 29°C, IAT slightly climbed above the starting temperature to 42°C by the end of the sprint. A difference of 39°C was exhibited between the two units after only a single top speed. This directly translates to faster acceleration, and better performance in all conditions.

Learn more about performance turbochargers and superchargers we have.