Product Information

812superfast

February 2017

812superfast Product Information

Marketing Production Communication N. 01/2017
Maranello, February 2017

Dear Dealers,

This document provides you with the main product characteristics for the 812 Superfast as it becomes available to order.

Best regards,

Fabio Menegon

812superfast Product Information

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Product concept and client profile

812superfast

PRODUCT CONCEPT

The 812 SUPERFAST is the fastest and most powerful Ferrari in the marque's history. Powered by a new 800 CV V12 engine, built around highly evolved transaxle architecture and equipped with leading-edge components and controls, it boasts a striking design and aerodynamics as well as uniquely smooth handling. It ushers in a new generation of Ferrari 12-cylinders and is the new benchmark for mid-front-engined sports cars. This is a model that will deliver a riveting, rewarding driving experience on both road and track thanks, to its superb handling and ride comfort on longer trips.

CLIENT PROFILE

The 812 Superfast is aimed at clients demanding the most powerful and exclusive Ferrari in the range: a high performance car that will also be comfortable enough to allow its owners to enjoy it as an all-round experience.

- Performance is the main purchasing motivator, specifically acceleration and handling
- the 12-cylinder is an important distinctive feature
- More design-focused client
- Focused also on in-car quality of life for day-to-day use and over long motorway journeys.

This client will also have significant Ferrari experience (they are the most loyal type of client) and will be attracted by the performance and prestige of the V12 Sport engine (in most cases will have an exclusively 8-cylinder sports car past).

CLIENTE TARGET

The summary below outlines the difference from 12-cylinder GT clients.

	812superfast	GTC4LUSSO
		
CLIENT	70% Repeaters	60% Repeaters
BUYER MOTIVATION	1. Performance 2. Design 3. Driving emotions 4. Driveability 5. Acceleration 6. Power 7. 12-cylinder torque Loves having at disposal sporty potential of a car with a sporty, elegant design, but only exploits full power occasionally.	1. Versatility (4RM) 2. Occupant space and comfort (Rear seats) 3. Performance 4. In - car comfort 5. Attention to detail Strong connection to Ferrari lifestyle. Loves the car's sportiness and also that it is not over the top and that can be enjoyed with whole family.
USE	Looking for driving emotions delivered by the power unleashed by the most powerful V12 on the market. Most used sports car. Often drives with passenger On weekends and 1 or 2-week holidays with frequent motorway use.	Does not like to be too showy when using the car. Everyday, often with young family. All year round.
OTHER CARS OWNED OR CONSIDERED	Ferrari 458/488 Mercedes Porsche Aston Martin DBS Lamborghini	Mercedes CL & SL Bentley Continental GT Rolls Royce Aston Martin Rapide Porsche

Product content and innovations

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KEY SELLING POINTS

Best POWERTRAIN compared to competitors

- The most powerful V12 ever with maximum engine speed: 800 CV, 8,900 rpm (limiter)
- Boosted displacement vs F12berlinetta (6,496cc. vs 6.262cc.)
- New 350 bar direct injection system (Ferrari High Pressure Injection)

vInnovative automatic control system for the variable geometry inlet tracts.

More aggressive design that enhances sportiness vs F12berlinetta

- Aerodynamic forms to enhance dynamism
- Contained dimensions for a greater feeling of compactness
- In-car space and comfort for extended use

Exceptional aerodynamics

- Innovative content active aerodynamics on rear diffuser, truncated rear window and flows channeled to increase pressure
- Improved aerodynamic efficiency vs F12berlinetta
- Improved downforce with same drag figure

KEY SELLING POINTS

Revolutionary handling and fun behind the wheel vs F12berlinetta

- Innovative content: EPS (Electric Power Steering) for pure exhilarating fun
- Introduction of PCV system, four-wheel steering (Virtual Short Wheelbase)
- Introduction of new high-performance functionalities to support driver:
    - Ferrari Performance (FPP Ferrari peak performance)
    - Ferrari Oversteering (FPO Ferrari power oversteering)
- Evolution of Side Slip Control (SSC) to Version 5.0 which integrates all controls to boost exploitation potential of performance:
    - Electric Power steering EPS
    - PCV Virtual Short Wheelbase
    - E-diff 3 + F12 Track
    - SCM-E Frs

EXTERIOR AND RUNNING GEAR

The 812 Superfast is a completely new car compared to the F12berlinetta it replaces in the product range. It also debuts a whole string of new features being aedpplied for the first time to the Product Range (highlighted in red in the images below).

EXTERIOR AND RUNNING GEAR

CAR PERFORMANCE

The 812 SUPERFAST is the most powerful V12 car in the Ferrari range. Aside from its overall performance it delivers the kind of handling that makes for enormous fun behind the wheel in all driving contexts and not just on the limit on the track, thanks to its four-wheel steering system. Its improvement on and departure from the previous product generations are such that the new 812 Superfast is at the top of its category and sets the new benchmark in terms of performance and driving pleasure.

CAR PERFORMANCE

Performance F12berlinetta vs 812SUPERFAST

F12berlinetta

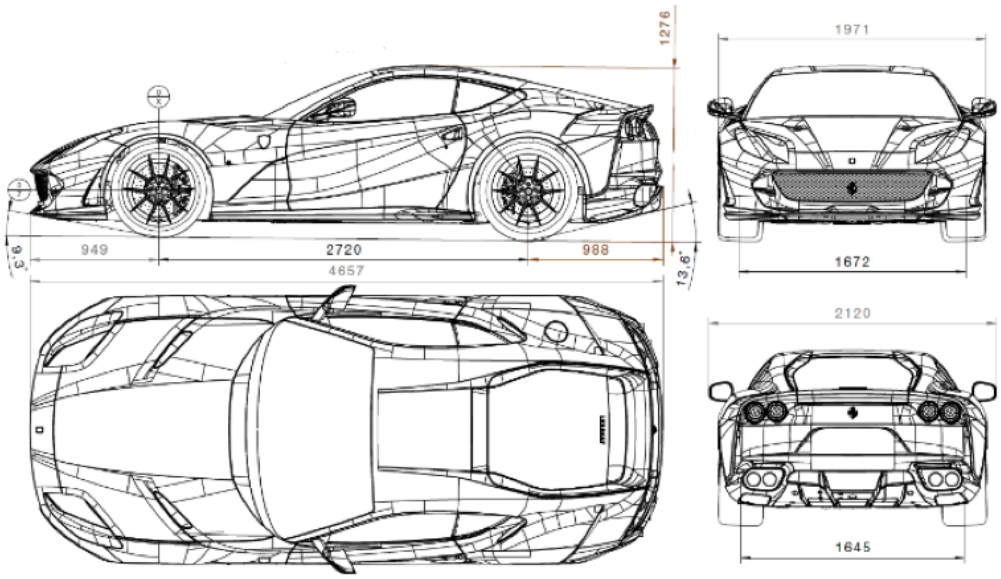
812superfast

BODY TYPE		
Body type	Coupé	Coupé
Numerber of seats	2	2
Number of doors	2	2
ENGINE & PERFORMANCE		
Engine	Aspirated	Aspirated
Engine position	Mid-Front	Mid-Front
Number of cylinders and layout	V12	V12
Displacement cc	6262	6496
Maximum Power (PS, CV)	740 @ 8250 *	800 @ 8500 *
Maximum Torque (Nm)	690 @ 6000	718 @ 7000
Specific Power CV/litre	118	123
Top Speed	> 340	> 340
0-100Km/h sec.	3.1	2.9
0-200Km/h sec.	8.5	7.9
Weight / Power (Kg/CV)	2.06	1.90
Fuel Consumption combined cycle (l/100km)	15	14.9
CO2 Emission (g/Km)	350	340
DIMENSIONS		
Fuel Tank Capacity (l)	92	92
Length (mm)	4618	4618
Width (mm)	1942	1942
Height (mm)	1273	1276
Wheelbase (mm)	2720	2720
Dry Weight (Kg)	1525	1525
Kerb weight DIN (Kg)	1630	1630
Boot capacity(l)	320/500**	320/500**
WEIGHT DISTRIBUTION	Front 46% - Rear 54%	Front 47% - Rear 53%
TRANSMISSION	7-speed F1 Dual-Clutch gearbox	7-speed F1 Dual-Clutch gearbox
DRIVE TRAIN	Rear	Rear
CARBON-CERAMIC BRAKES	Standard	Standard

* +5 CV ram effect

** If rear bench is connected to boot

CAR DIMENSIONS



	F12berlinetta	812superfast	Delta	Razionale
Length (mm)	4618	4657	+ 39	To increase downforce
Width (mm)	1942	1971	+ 29	Larger front tyres
Width max (mm)*	2080*	2120*	+40	Larger front tyres
Height (mm)	1273	1276		
Wheelbase (mm)	2720	2720		Larger front tyres
Front track (mm)	1665	1672	+ 7	PCV
Rear track (mm)	1618	1645	+ 27	Virtual Short Wheelbase
Boot capacity(l)**	320/500**	320/500**		
Fuel tank capacity(l)	92	92		

*Including wing mirrors
**with rear bench lowered

Engine and transmission

812superfast

ENGINE

The challenge with the new 812 Superfast was to deliver the most powerful road-going engine in Ferrari history (800 CV, 123 CV/l) whilst still reducing emissions and fuel consumption. Moreover, of course, retaining that inimitable Ferrari 12-cylinder soundtrack.

The comparison below with the F12berlinetta's engine highlights its characteristics:

	F12berlinetta	812SUPER-
Architecture	V12 – 65°	V12 – 65°
Bore	94 mm	94 mm
Stroke	75.2mm	78 mm
Displacement	6,262 cc	6,496 cc
Fuel injection	GDI 200 bar	GDI 350 bar
Compression ratio	13.5:1	13.5:1
Limiter red-line	8,700 rpm	8,900 rpm
Max. power output	740CV* @8,250 rpm	800CV* @ 8,500 rpm
Specific power outupt	118 CV/l	123 CV/L
Torque	690 Nm@6,000 rpm	718 Nm@7,000 rpm

*Including 5 CV ram effect

ENGINE

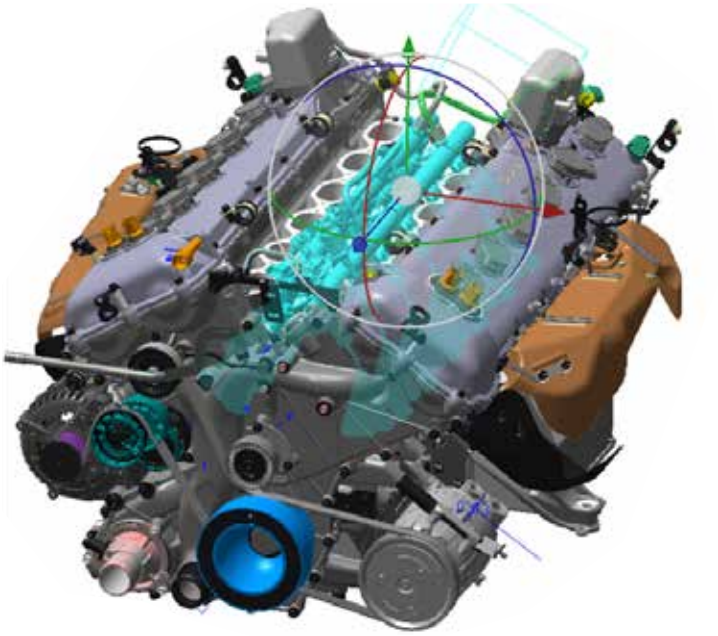
When it came to designing the engine, the engineers set themselves the challenging goal of boosting the specific power output of the F12berlinetta's front-mounted 12-cylinder still further. This was a big ask given that the latter already delivered market-topping performance for a large displacement front-mounted engine.
To achieve their objective, they decided to focus their efforts on both optimising the permeability of the intake system and combustion efficiency to fully exploit the increase in the engine's displacement from 6.2 to 6.5 litres. These aspects increased the maximum amount of air that could be drawn into the engine (and thus its power output) thereby boosting its efficiency.
The development process resulted in a maximum power output of 800 cv(*) at 8,500 rpm, a new benchmark for the Ferrari range, in addition to a specific power output of 123 cv/l, a completely unprecedented figure for an engine front-mounted in a production car.
The torque curve will ensure the driver feels the impressive improvement on the F12berlinetta in terms of acceleration and instantaneous sporty power, particularly at high revs. The engine's power is underscored by a full, rich exhaust sound that exploits the acoustic clout delivered by its increased displacement.

* including 5 CV from ram effect

ENGINE

These performance levels were achieved in part by optimising the engine design and in part by introducing innovations, such as the use of a 350 bar direct injection system for the very first time on a spark-ignition engine, and the control system for the variable geometry inlet tracts, developed on naturally-aspirated F1 engines, which is a further evolution on its application on the special limited-series F12tdf.

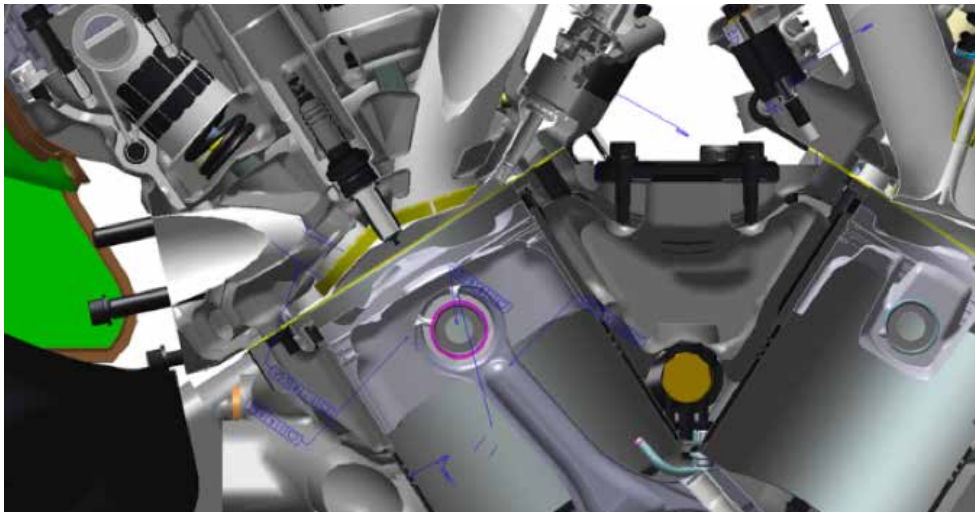
These systems allow the increase in displacement from 6.2 to 6.5 litres to be exploited to maximise power output whilst retaining excellent pick-up even at low revs.



The high pressure injection system also improves nebulisation of the injected fuel thus dramatically reducing the amount of particulates emitted when the catalytic converter is warming up, ensuring the engine complies with all emissions regulations.

ENGINE

The engine's maximum power-to-fuel consumption ratio has also been improved, attesting to the engine's exceptional efficiency in urban driving contexts. This was achieved in part as a result of Stop&Start On the Move strategies which cut and restart the engine while the car is moving.



Particular attention was also paid to calibrating the Manettino settings to enhance the engine's potential and the sensation of extreme power delivered by the car. That said, the driver will always be able to easily and confidently dose the massive torque available with the accelerator pedal, thanks to smooth, progressive power delivery at all engine speeds.

ENGINE

The gear-shift strategies enhance the car's sportiness. When the Manettino is in sportier settings, both up- and down-shift times have been significantly cut and the transition time has been optimised to enhance the driver experience. Combined with the shortened gear ratios, these modifications mean that occupants will instantly feel that the car has a more powerful response to the throttle than the models that preceded it.

The engine's overall efficiency and thus its improved performance are the result of improvements to its individual efficiency levels.
The main development focuses with the engine can be described by grouping them in terms of the contribution they make to improving the various efficiencies, specifically:

- Volumetric efficiency
- Combustion efficiency
- Mechanical efficiency

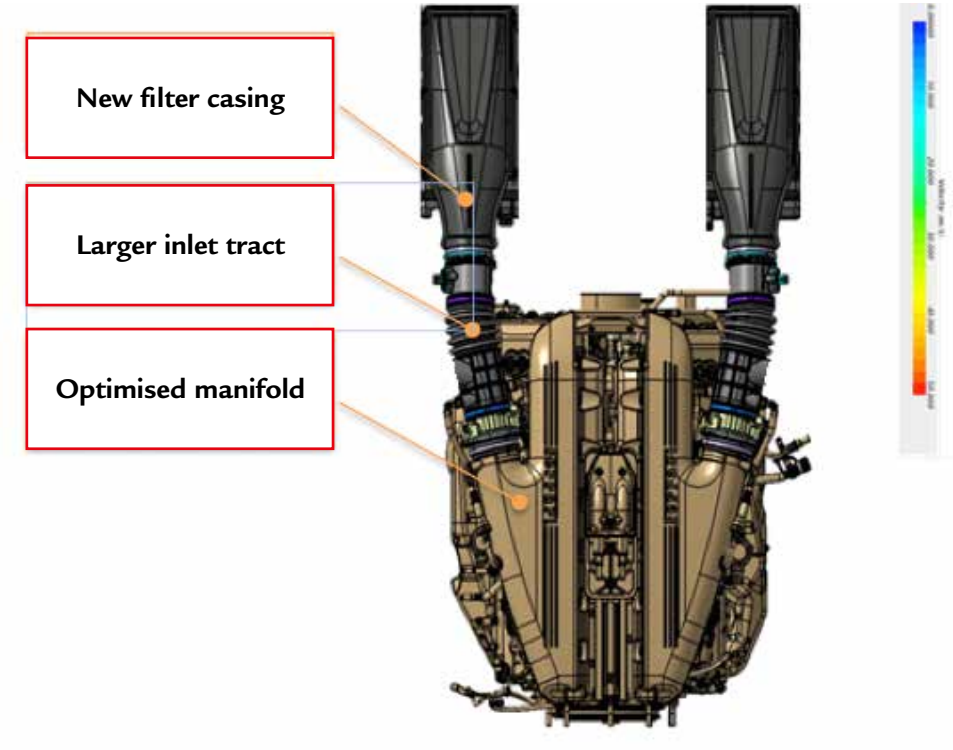
It is useful therefore to use this criterion in describing the individual contents below.

VOLUMETRIC EFFICIENCY

More permeable inlet tract

The engine's permeability was improved by increasing the diameter of the throttle body and the ducts running from the air filter to the inlet port of the intake manifold. One of the main modifications made to this was the removable of the front resonators which were signatures of the previous engine. This reduced pumping losses in the air flow taken in by the engine, improving cylinder filling conditions.

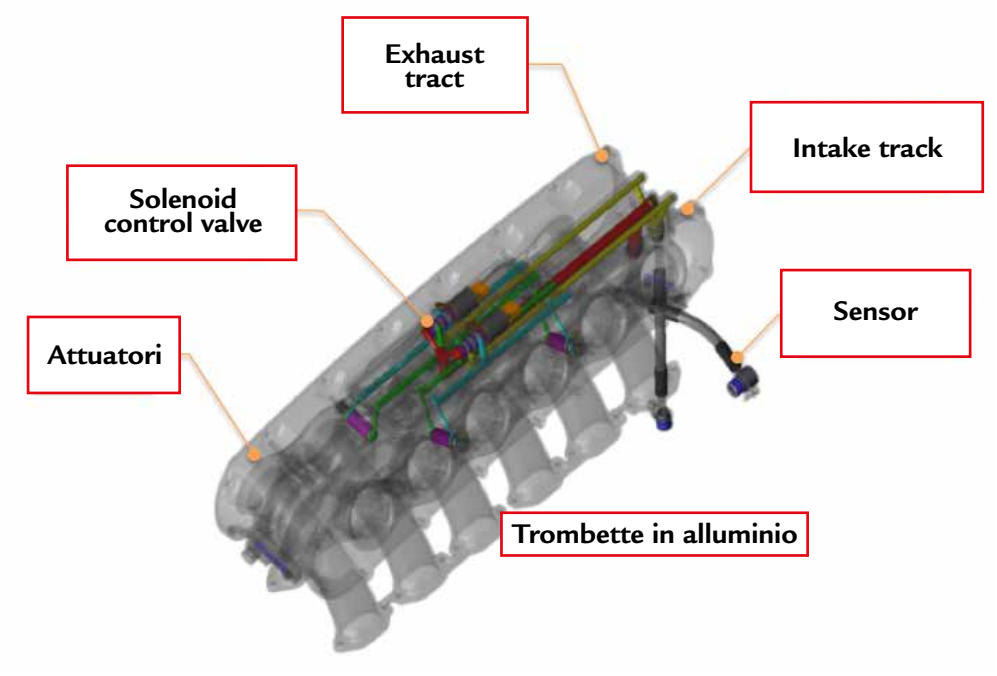
The figure below illustrates the fluid dynamics of the air taken in by the engine.



VOLUMETRIC EFFICIENCY

Displacement increase

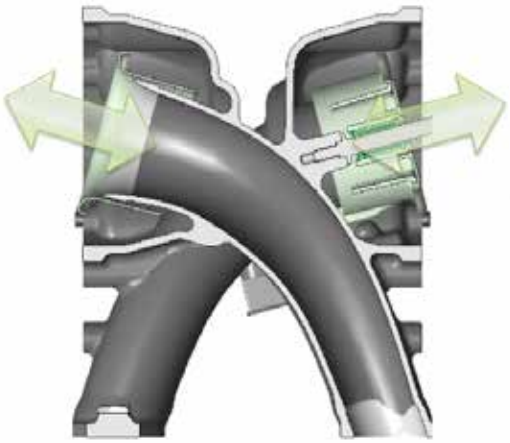
The engine's displacement was increased from 6.2 to 6.5 litres by lengthening the stroke (from 75.2 to 78 mm), thus modifying the crankshaft and the con rod. This increased the maximum amount of air that could be drawn into the engine and thus its potential performance. To capitalise on this potential, the inlet tracts for the tappets had to be revised as below.

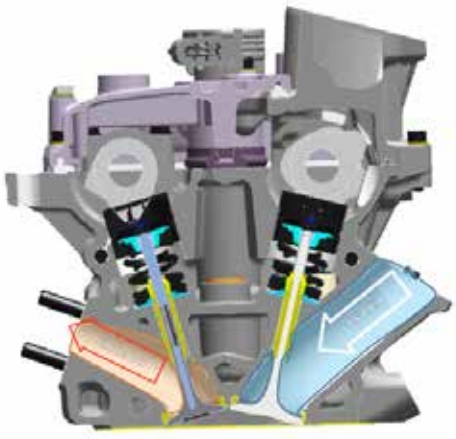


VOLUMETRIC EFFICIENCY

Variable trumpets

One of the main innovations introduced with this model is the automatic control system for the variable geometry inlet tracts. This comprises two groups of telescopic aluminium trumpets. The latter are commanded by a system of hydraulic actuators controlled by the ECU and which use a trumpet-length position sensor to move the end sections. This system enables the length of the tracts to be varied, adapting it to the engine pulsation to maximise the dynamic charge in the cylinder which is equipped with variable valve timing (intake and exhaust). This optimises both torque and power at all revs.

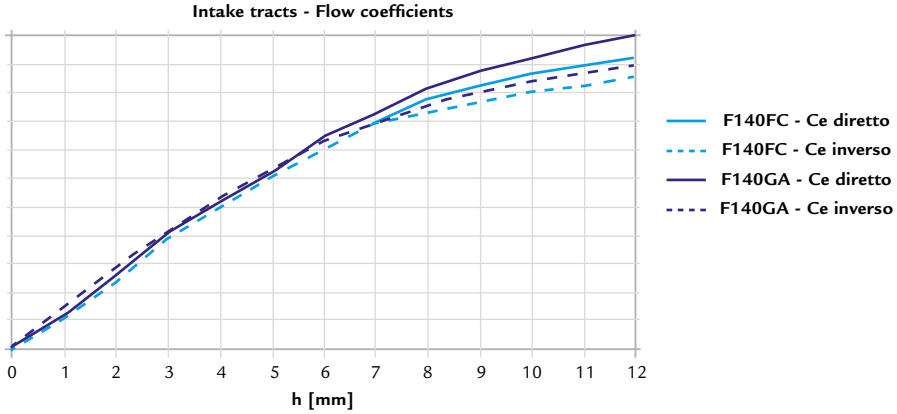




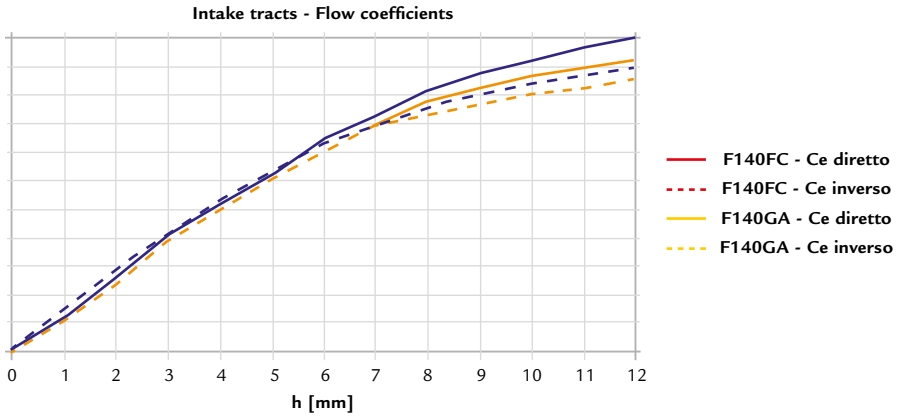
VOLUMETRIC EFFICIENCY

New cylinder head tracts

The intake and exhaust tracts were completely redesigned to reduce pumping losses in the air flow entering and exiting the cylinders. The diameter has been widened and the section modified to optimise air flow through the intake valves. The diameter of the latter has also been increased from 37.8 to 39 mm and specific valve lift profiles have been adopted to optimise maximum power output.



The benefits of the new design can be seen in the flow coefficient of the valves as their height changes – there is an improvement of 8% on the previous engine.

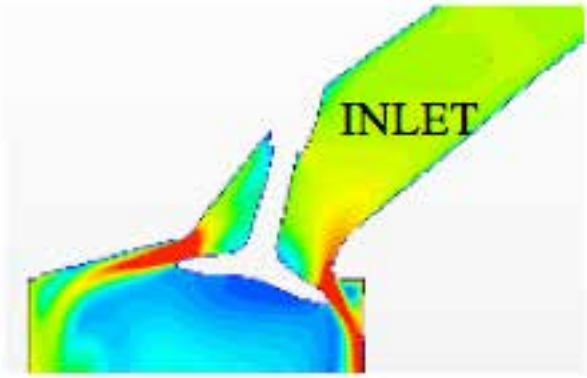


VOLUMETRIC EFFICIENCY

This means that the increase in displacement and the higher maximum revs can be capitalised on.

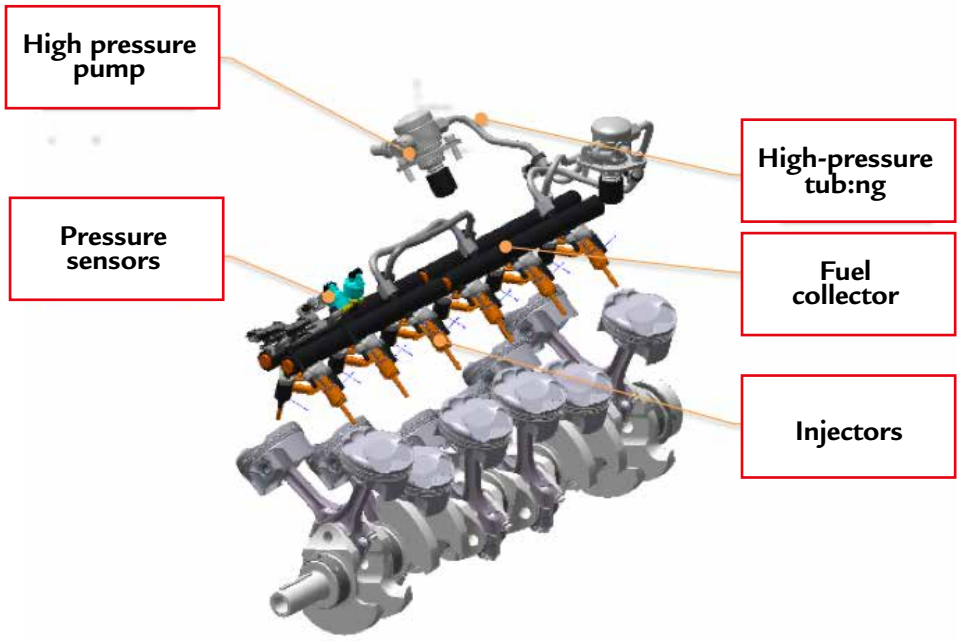
To reduce particulate emissions, the engineers also tried to maintain the efficiency of the tumble vortex in the intake phases to favour a homogenous air-fuel mix and to prevent droplets of fuel reaching the cylinder walls.

The exhaust tracts were honed to reduce pumping losses caused by the difficulty of forcing exhaust gases out of the cylinder.



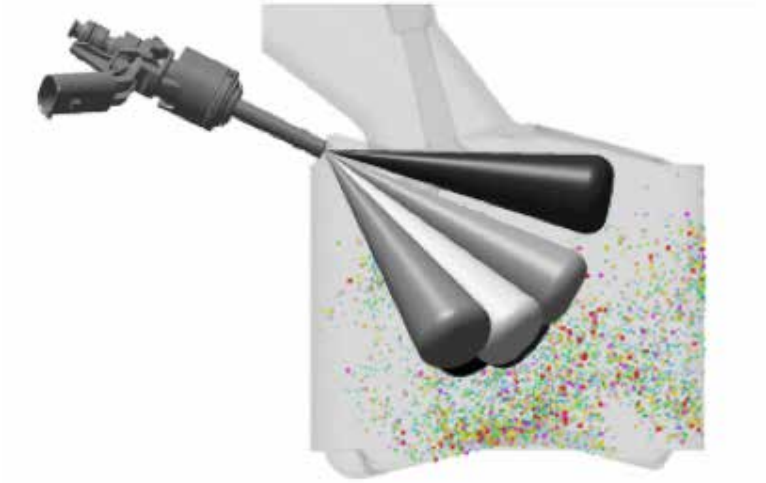
COMBUSTION EFFICIENCY

350 bar direct injection system (Ferrari High Pressure Injection)
Significant improvements have been made to engine performance thanks to the adoption of the 350 bar injection system. This makes for significant flexibility which improves particulate emissions whilst simultaneously guaranteeing optimal efficiency to deliver maximum performance.
The new system, illustrated in fig. xxx, comprises a high pressure volumetric pump, tubing, injectors and pressure sensors located on the fuel collector.



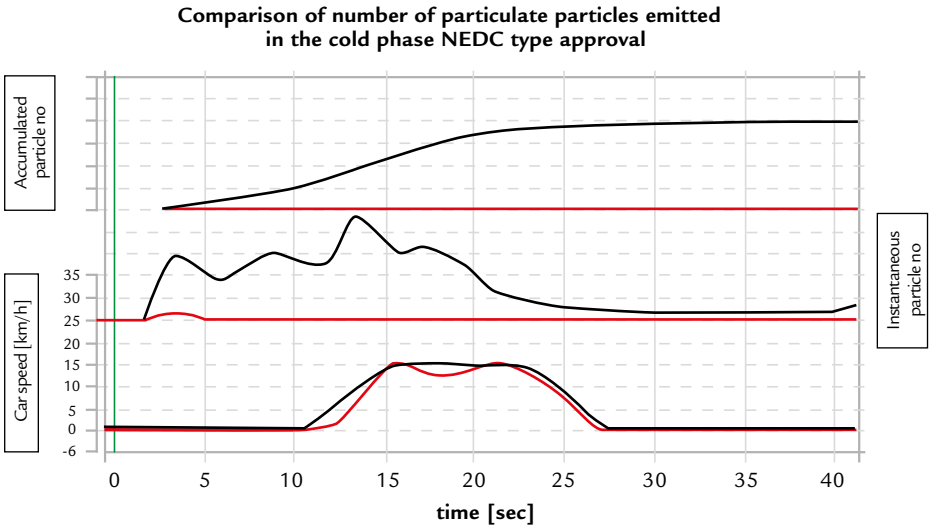
COMBUSTION EFFICIENCY

This system allows the pressure to be controlled up to 350 bar; the ECU reads the pressure level in the collectors and then controls the pump to ensure that the desired pressure is achieved. The injectors were developed for this specific application and have functional characteristics designed to reduce particulate emissions still further.
Improved fragmentation of the particles injected into the chamber have reduced the time required for the fuel to evaporate and thus improve the air-fuel mix at ignition.



The new 350 bar system not only splits the injection into several phase (up to 3), an advantage in terms of polluting emissions, particularly in the warm-up phase when the engine is cold and particulate formation is more likely via condensation on the cold surfaces of the combustion chamber.
The quantity of particulate emitted by the engine in the early stages of the NEDC cycle can be reduced by over 40 times, as the figure below illustrates.

COMBUSTION EFFICIENCY

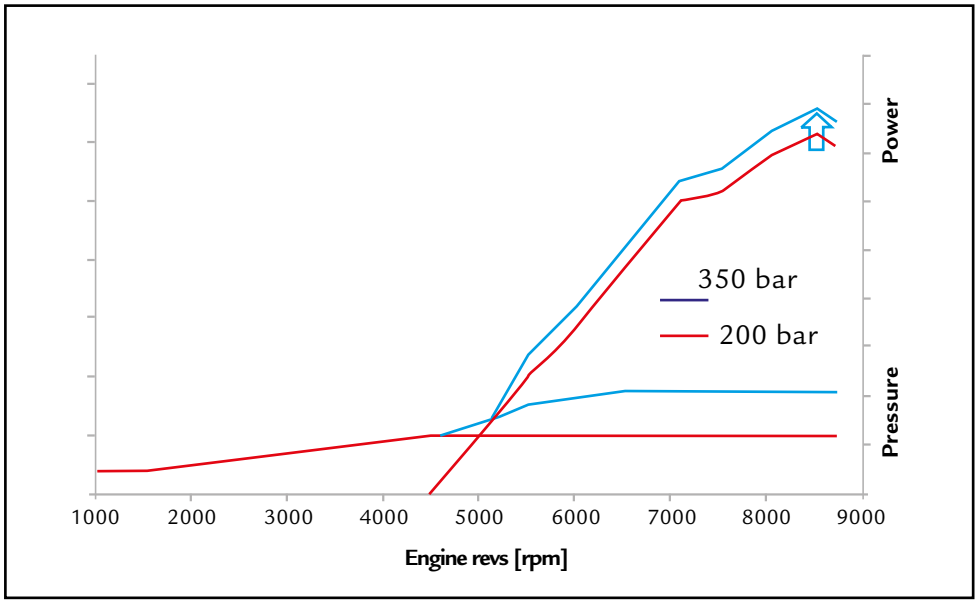


The adoption of higher pressure injection also has an advantage in terms of the engine's maximum performance, as illustrated in the next figure. It offers greater flexibility in optimising the injection phasing compared to the traditional 200 bar system.

COMBUSTION EFFICIENCY

Electronic combustion management

Combustion quality is constantly monitored by the ECU (Version 3.1) which has an ion-sensing system that measures ionising currents to control ignition timing and adaptively predict misfires. It also has a multi-spark function which enables the spark advance to be maximised at all revs. It does so via a strategy that delivers flexible, optimised engine control calibration at low revs to the benefit of fuel consumption.



MECHANICAL EFFICIENCY

Engine oil circuit

Modifications were made to the engine's oil circuit with the aim of permeabilising the entire oil scavenge line from the cylinder block to the tank and the tank to the engine. This improves the pump's operating conditions and thus reduces the energy required to circulate the oil, improving performance. The variable displacement pump means the amount of oil sent to the engine can be adapted to different operating conditions. Another factor that contributes to attaining this objective is the use of a less viscous engine oil (Shell Helix 5W40) which eases engine friction during low temperature starts.

With regard to the crankcase, the engineers retained the F12berlinetta's four oil scavenge pumps with rotors using smaller diameter blades with reed valves to optimise extraction efficiency.

Camshafts

The camshafts are super-finished using a lapping process that reduces surface roughness, thus minimising the coefficient of friction between the cam lobes and the tappets.

Pistons

To reduce friction between piston and cylinder, the piston skirts have a specific anti-friction coating, while the piston rings have a PVD (Physical Vapour Deposition) chrome coating. The latter features reduce both fuel consumption and wear of the components themselves. The geometry of the piston ring grooves also reduces and stabilises gas flow through the piston in all operating conditions.

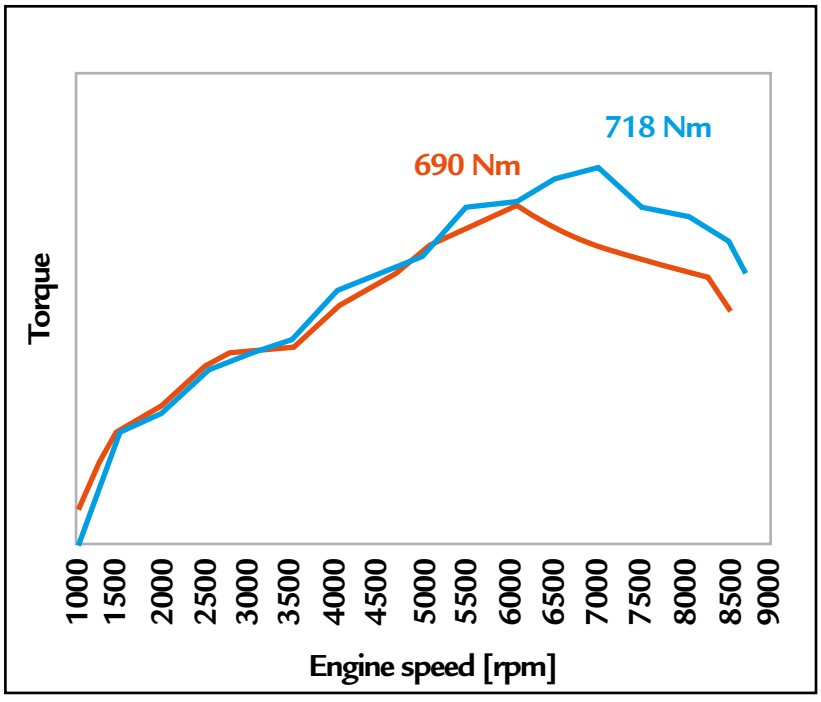
SOUND

The geometry of the exhaust system was developed to increase and balance the sound from the engine and tailpipes, with the aim of accentuating the car's extreme sporty character.
Exhaust-wise, prevalence was given to combustion order harmonics by modifying the geometry of the centre extension pipes. All the pipes the 6-in-1 exhaust manifold to the monolithic catalytic converter are of equal-length and this optimises the sound by giving predominance to the first-order combustion harmonics, yielding a more high-frequency sound. The result is a full-bodied V12 sound in the cabin in all kinds of driving.

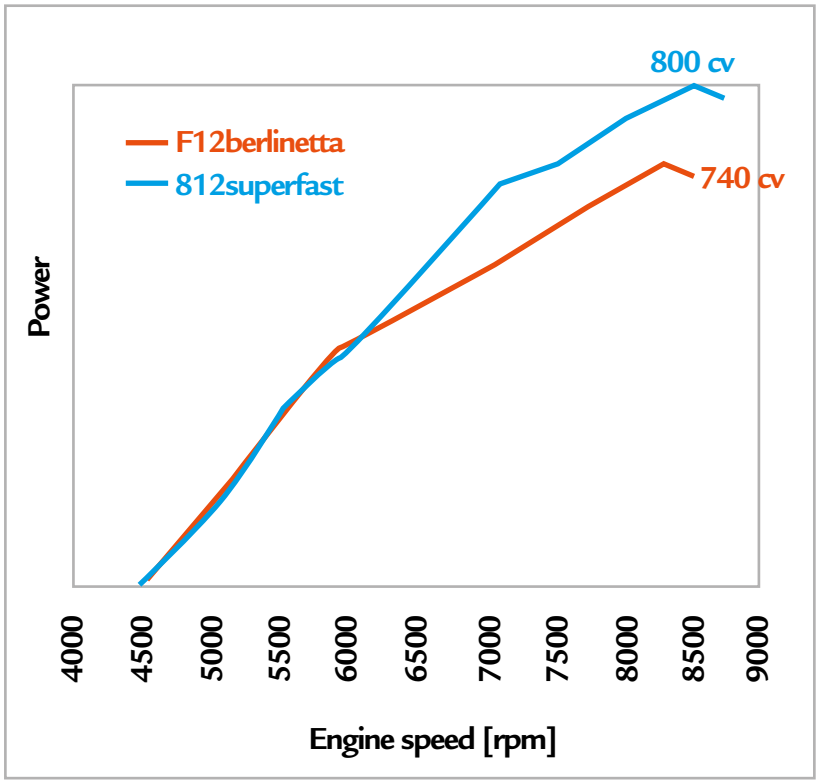
ENGINE PERFORMANCE SUMMARY

The result of the aforementioned modifications can be summarised in a nutshell by looking at the jump in maximum power output to 800cv @ 8,500 rpm (60 cv more than the F12berlinetta) and maximum torque of 718 Nm@7,000 rpm, a completely unprecedented achievement in a naturally-aspirated road-going Ferrari.
The shape of the torque curve reveals that torque distribution was not sacrificed to boost power with 80% of maximum torque already available at just 3,500 rpm, to the great benefit of flexibility and pick-up at low revs.

The shape of the power curve, which rises constantly all the way to the maximum revs of 8,500 rpm, and the rapidity with which engine speed increases, thanks to low inertia, give occupants the feeling of boundless power and acceleration. The latter sensation comes courtesy of the overall increase in maximum power output and the optimisation of the aforementioned power curve between 6,500 and 8,900 rpm,



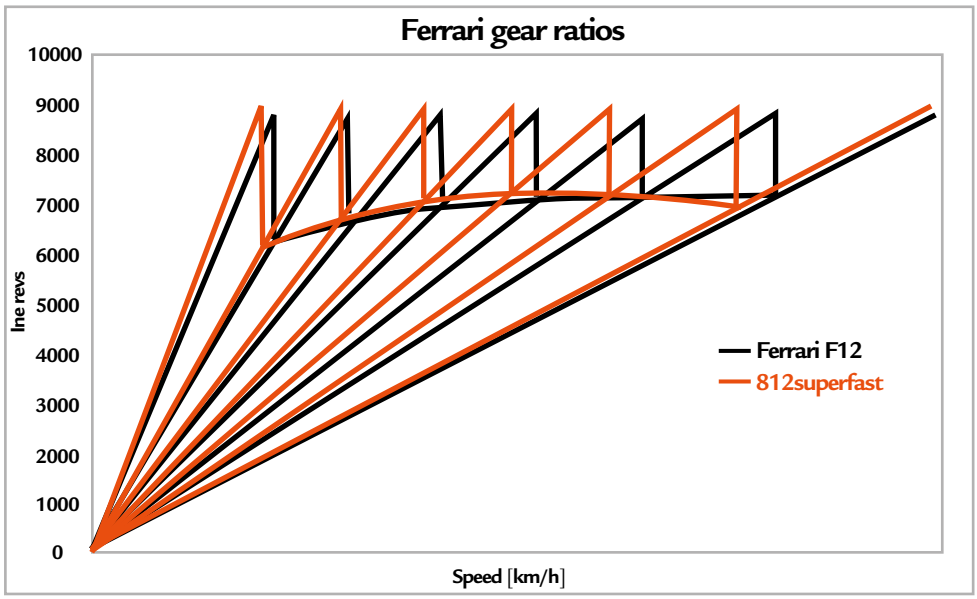
ENGINE PERFORMANCE SUMMARY



which maximises the average horse power exploitable for press-on track driving when engine revs are kept consistently high.

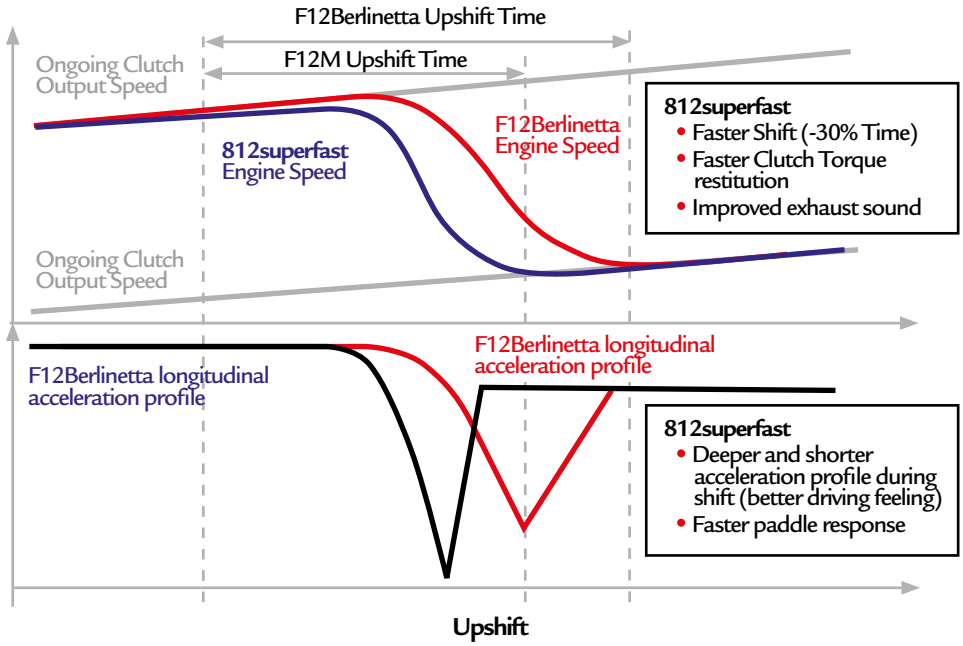
TRASMISSION

The new 812 Superfast is fitted with Ferrari's F1 Dual-Clutch transmission which has been further evolved to meet the car's track driving performance targets and cope with the boost in maximum revs to 8,900 rpm. The gear ratios on all of the gears have been shortened by an average of 6% to exploit the extra performance and higher revs to the fullest as well as to improve the car's acceleration without compromising pick-up in higher gears.

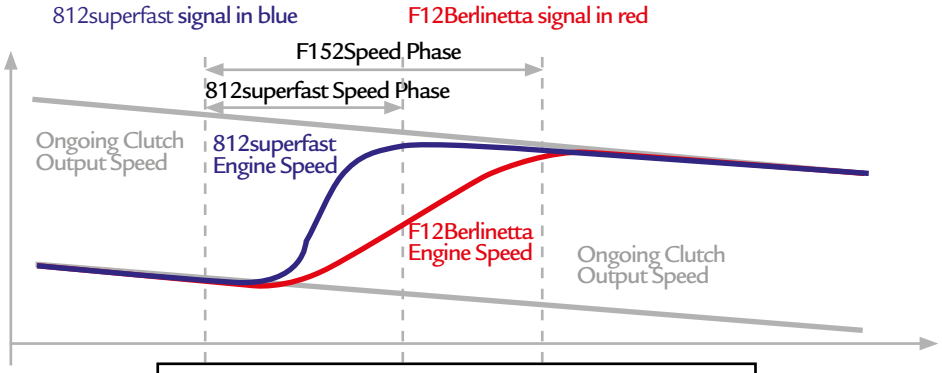


This type of transmission combines boosted performance with a smoother, more comfortable ride. The opening and closing phases of the two clutches are overlapped which delivers instantaneous gear shifting, guaranteeing smooth torque delivery (sportiness) and eliminating the acceleration gap typical of electro-hydraulic gearboxes, to produce shifting similar to an automatic but without a torque converter (comfort).
There was particular focus on calibrating the gear-shift strategy to enhance the car's sportiness, further slashing response times and creating a feeling of massive power, both in terms of longitudinal acceleration and auditory perception.
The figures that follow compare the engine rev profiles during both up- and down-shifts, and it is clear that transition time has been significantly reduced by 30 and 40% respectively.

TRASMISSION



Upshift



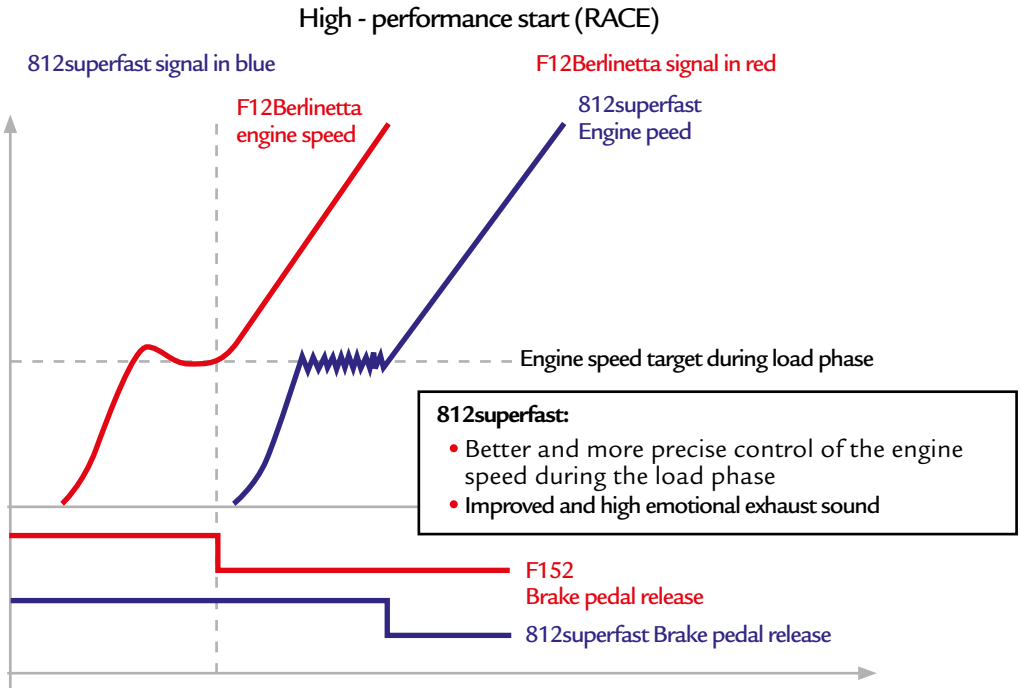
812superfast:
- Faster engine speed synchronization (- 40% Time)
- Improved throttle and engine torque handling during shift
- Les time without engine brake
- Improved intake and exhaust sound during shift

Downshift

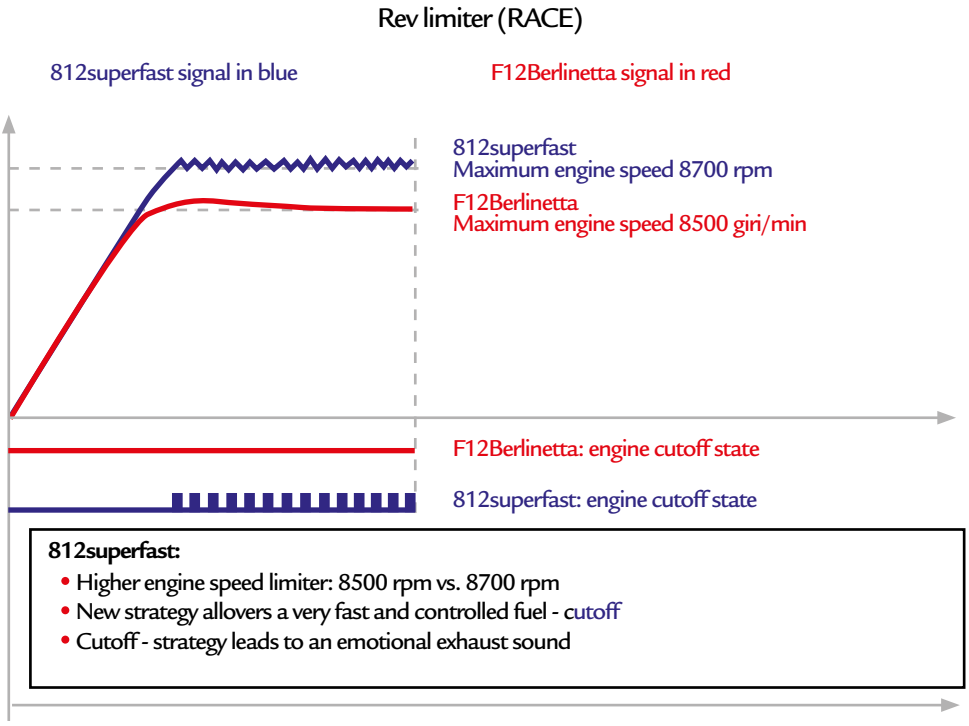
TRASMISSION

On the track, this sharpened response equates to more down-shifts in the same time interval, when the driver uses the multi-down function (keeping the steering wheel-mounted Down shift paddle depressed with the Manettino in Sport position.

For up-shifts, a control strategy for the opening and closing of the clutches is adopted to enhance the feeling of pick-up immediately after the gear change. This gives the driver a feeling of being thrust back against the seat which will be perceived as razor-sharp responsiveness in, for example, the initial stage of overtaking another car. Gear shifting is now faster in this function too.
Particular attention was paid to generating emotional impact too. The high performance start and dynamic rev limiter functions, which are available in RACE, have been calibrated to enhance a sense of sportiness on the track with an exhaust sound that clearly marks out both.



TRASMISSION



The transmission is also integrated with the E-Diff 3 electronic differential, which reduces overall weight.

TYRES

The tyres were specially developed by Michelin and by Pirelli with a specific footprint.

The tyre sizes are as follows:

	F12 berlinetta	812 superfast	
Front tyres	255/35/20 J9.5	275/35/20 J10.0	+ 8%
Rear tyres	315/35/20 J11.5	315/35/20 J11.5	0
Front / rear ratio	80%	87%	+ 9.1

ELASTIC SET-UP

The car's elastic set-up was developed as a function of its performance objectives and also the emotive-targeting of its character.

Hence:

- new dimension springs which are stiffer with spring rates similar to or higher than the F12berlinetta, guaranteeing vertical excursion frequencies similar or superior to the LaFerrari and 458 Speciale
- the front / rear balance has been calibrated to favour the rear to maximise the front axle's performance and reduce understeer.

The suspension and dampers were developed by resizing the springs which increases roll stiffness, particularly at the rear axle, thereby further limiting understeer.

BRAKES – CCM IV

The new car's braking system is the most efficient ever designed by Ferrari and adopts the new Extreme Design one-piece brake callipers used on the LaFerrari.
The front 6-pot callipers have six pistons of different diameters (to guarantee uniform wear of the pad which otherwise would otherwise wear faster on its leading edge).
The rear callipers are 4-pot (the pistons have heat insulation and are drilled radially where the piston is in contact with the pad to limit transfer of heat to the hydraulic brake fluid). They also integrate the electric handbrake which further reduces weight, and are made from new generation composite materials to improve heat dissipation.

The pads are the work of Brembo and their braking surface is made from a carefully-calibrated mix of organic elements to guarantee the best possible braking performance with Brembo CCM discs which are also made from new generation composite materials to improve heat dissipation.
This particular system was selected to optimise performance, to guarantee a consistent coefficient of friction and reduce weight. Combined with the Hi Performance ABS and ESP 9.0 Premium, they deliver unprecedented stopping distances:

	F12 berlinetta	812 superfast	DELTA
100-0 s.t.	34,5 m	32 m	-11%
200-0 s.t.	131 m	121 m	-8%

The system's strong points are:

- Weight reduction
- Better pedal feel thanks to improved rigidity
- Better ventilation.

Vehicle dynamics

812superfast

THE CHALLENGE

To start with the key product contents of the F12berlinetta and transfer to them the innovative elements introduced on the F12tdF with the objective of pushing the performance levels of the front-engined V12 sports car to new heights. Specifically:

- Boosting overall performance in the dry through the adoption of a front tyre with same dimensions as the F12tdF (275/35)
- Exploitability of said performance using the front and rear-wheel steering systems which, aside from introducing four-wheel steering, now also mark the first use on a Ferrari of Electric Power Steering (EPS)
- Retention and improvement of overall performance envelope targeting use not specifically focused on performance in the dry (as per F12tdF).

The technical development areas involved were as follows:
Mechanical dimensions:

- Tyres: 275/35/20 e 315/35/20 (as per F12tdF)
- Weight reduction of 60 kg compared to F12berlinetta
- Stiffer elastic set-up than the F12 and magnetorheological dampers with double solenoids
- Aerodynamic efficiency and overall downforce level similar to F12tdF

Vehicle controls:

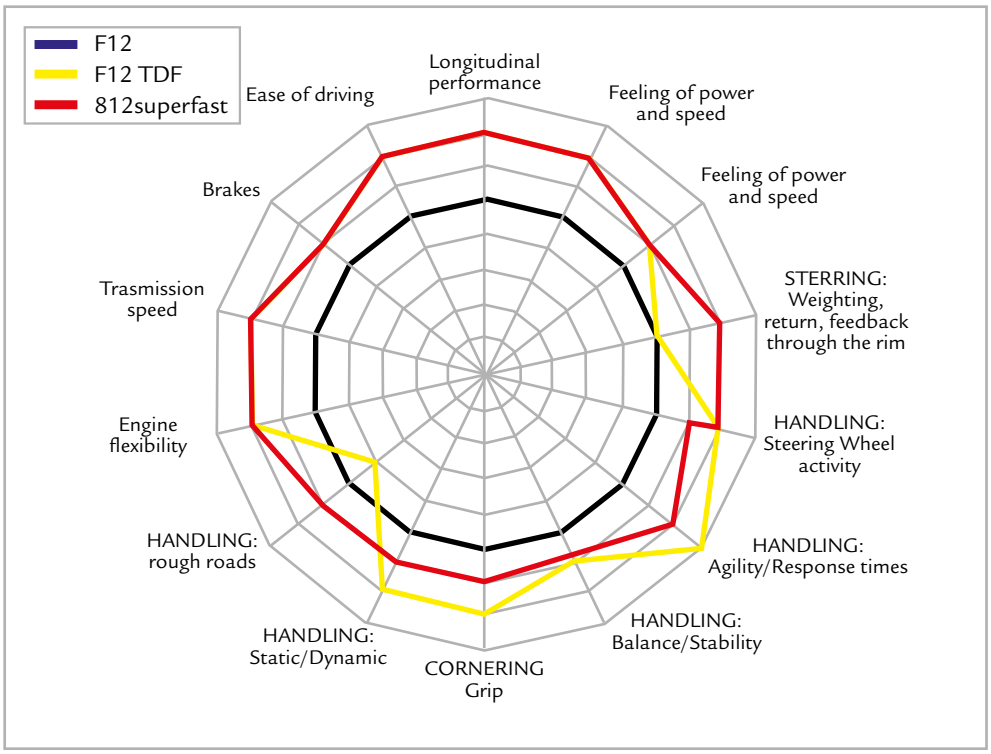
- Electric Power steering
- Virtual Short Wheelbase
- Ediff 3 + F12 Track
- SCM-E Frs

integrated into the SSC 5.0 concept which, as with Version 3.0 adopted on the F12tdF, has the goal of boosting exploitability of maximum performance achieved through a suitable mechanical set-up.

THE CHALLENGE

In this new version, there is also a dedicated control channel that regulates the torque of the Electric Power Steering which, combines electric front-wheel steering assistance with rear-wheel steering and the other electronic control systems. helps the driver exploit the car's performance potential more easily and fully on the limit.

Performance envelope



LONGITUDINAL PERFORMANCE

Objectives

The aim is to offer similar performance as the F12tdF in terms of:

- Feeling of power (acceleration and progression profile)
- Engine response times and driveability
- Max. engine revs
- Braking and stopping distances

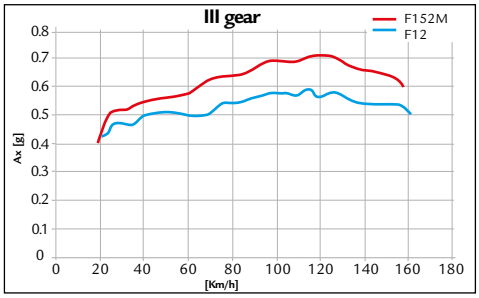
Descriptions of elements involved

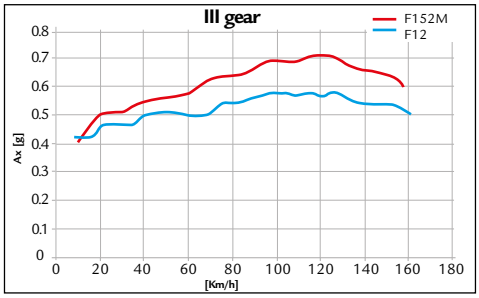
To achieve this objective, all the elements involved were revised and optimised, particularly:

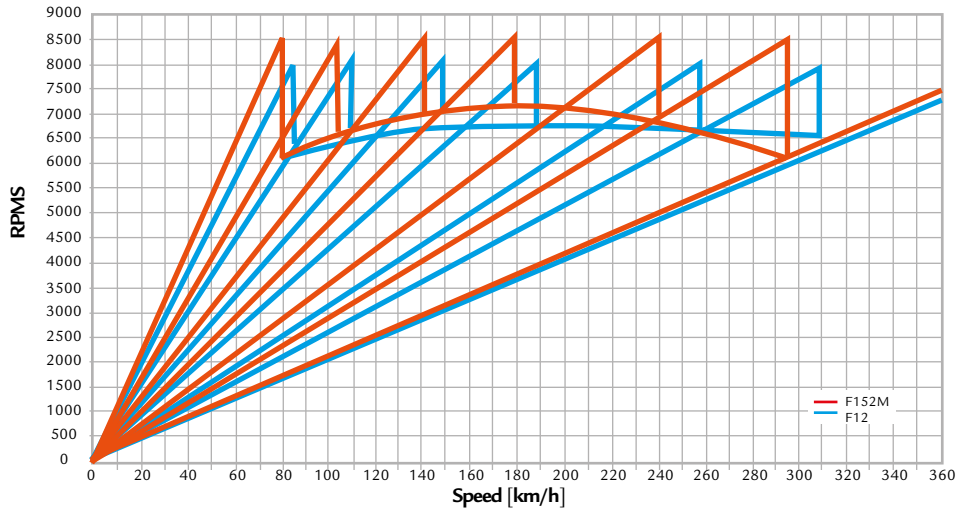
- Engine torque curve graph
- Gear ratios

Results

0-100: 2.9 s
0-200: 7.9 s
Acceleration: see chart featuring gear ratios







LATERAL PERFORMANCE

Objectives

The objectives were to transfer the main performance features introduced on the F12tdf to a front-engined berlinetta sports car with the aim of:

- Boosting maximum lateral performance
- Improve sensation of agility and responsiveness to commands
- Increase exploitability of the (high) performance itself
- Keep performance envelope superior to that of the F12tdF (dry-wet compromise)

Actions

In order to achieve the objectives set, the Virtual Short Wheel Base introduced on the F12tdF was reused, but also extended upon with electric front-wheel steering assistance. As usual, integration of the electronic control components around the dedicated logics proved vital to achieving the lateral acceleration target. The result is the new Version 5.0 of the SSC which also integrates the Electric Power Steering used for the very time on a Ferrari.

Description of components:

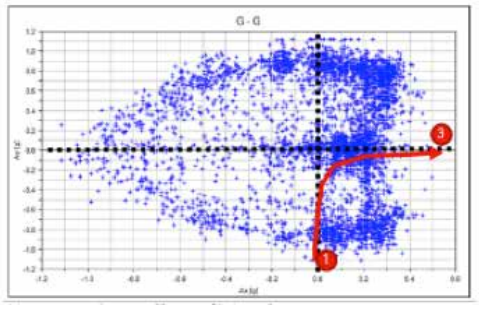
- Virtual Short Wheelbase 2.0 (with EPS)

The 812 Superfast marks the debut of Electric Power Steering and this is used in an innovative way to support and further extend the mechanical-electronic concept introduced on the F12tdF.
The 812 Superfast has the same front (275/35) and rear (315/35) tyre dimensions as the F12tdF designed to maximise mechanical performance (maximum lateral acceleration).
As with the F12tdF, the mechanical concept is integrated with the live rear axle to support guaranteeing maximum exploitability of the mechanical concept.
For the first time, however, maximum exploitability of the available performance has been improved by the integration of steering wheel weighting management via Electric Power Steering.

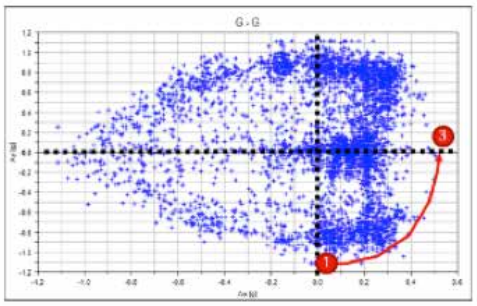
LATERAL PERFORMANCE

The integration of the EPS enabled Ferrari's engineers to introduce new driver-assistance functionalities:

- (F.P.P.) Ferrari Peak Performance: the driver is alerted in advance that the car is nearing its grip limit, thus making it easier to keep cornering speeds as high as possible.
- (F.P.O.) Ferrari Power Oversteering: in the case of power-on oversteer out of corners, the steering wheel weighting helps the driver to realign the car correctly.



Traditional control



Supported control

General control systems overview

	Entering corner	Through corner	Exiting corner
Steering wheel activity	PCV 2.0 Ediff	PCV 2.0	PCV 2.0
Feeling of agility	PCV 2.0	PCV 2.0	PCV 2.0
Max. performance	Ediff	EPS (FPP)	F1 TCS/Ediff EPS (FPO)
Exploitability of performance	Ediff	PCV 2.0 Ediff	F1 TCS/Ediff EPS

Results

Steering wheel activity	-6.5% thanks to contribution of EPS and PCV 2.0
Response time	-10.5

Aerodynamics

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AERODYNAMICS

The new front-engined V12's aero design is part of Ferrari's ongoing commitment to continually improving performance with each new model, both in terms of speed and augmented vehicle dynamics for a more exhilarating driving experience.

The development guidelines aimed to achieve exceptionally high aerodynamic efficiency figures through boosting of the downforce that influences a car's stability without increasing drag as the latter would negatively impact fuel consumption and maximum speed.

The aerodynamic coefficient values delivered by the 812 Superfast are a significant improvement on those of the F12berlinetta. Mobile aero solutions, whether mechanically activated (active mobile aerodynamics) or activated by the pressure of the air itself (passive mobile aerodynamics), guarantee very low drag values. The choices made in this area were heavily influenced by those debuted on the special F12berlinetta-derived F12tdf, with which the 812 Superfast shares its downforce values.

HEAT

As with the F12TDF, the correct management of engine air flows provided the essential starting point for the kind of aerodynamic development that would boost its performance. In this instance, research mostly targeted the management of the hot, slow air flows coming off the radiating masses. While with the F12berlinetta the focus was on the central air vent on the bonnet, with the new car the job of evacuation has shifted towards the outsides, to deflect the warm flows along the sides, favouring charged air at the centre of the car which the rear spoiler then exploits. On the underbody, on the other hand, the development process focused on the evacuation of warm air through a central channel that also includes the exhaust pipe tunnel. Furthermore, the powerful suction generated by the specially-developed flat underbody reduced the surface area of the air being evacuated, thereby increasing efficiency.

AERO – FRONT OF CAR

The front bumper features the first departure from the F12berlinetta. To the side of the air intakes for engine and brake cooling, is a turning vane on the front bumper which is designed to channel air flows striking the front of car to ensure they hug its flanks, thereby reducing the width of the car's wake. This in turn appreciably reduces overall drag.
Front downforce generation is entrusted for the most part to a pair of diffusers just ahead of the front wheels, which increase the amount of air drawn in by the front underbody. To cancel out the drag associated with them, the diffusers have been equipped with a mobile aero system. When this activates, it completely stalls the diffusers, fairing in the wheel. The mobile surface integrated into the diffuser ramp is activated by the pressure of the air which, as it enters from the lower intake on the outside of the bumper, is channelled towards the mobile surface. When the car reaches a speed where the pressure in the duct is stronger than the calibrated pre-load of an elastic spring, the mobile surface opens, thereby reducing the car's drag and improving front downforce.

AERO – FRONT OF CAR

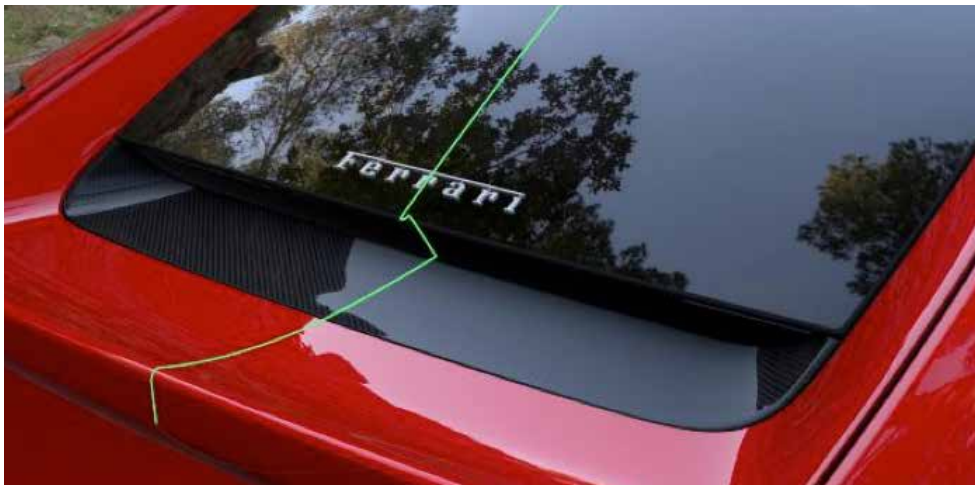
The front diffusers' capacity to generate downforce is boosted by generous air evacuation from the front wheelarch along the side of the car. This vent on the flanks also directs the energised air flow from the diffusers on the front underbody, preventing pressure build-ups inside the wheelarch and thus improving downforce and cutting drag. This effect is maximised by two sculpted air intakes on the front bonnet by the side of the headlights. The flow is channelled by a specific duct to the front section of the inside of the wheelarch, where it reduces pressure, before energising the flow exiting along the flanks.

AERO – REAR OF CAR

There is a spoiler on the car's tail and this is the main contributor to rear downforce generation. The trailing edge of the spoiler is 30 mm higher than on the F12berlinetta as per the F12tdf. However, unlike the latter, it has not been extended rearwards in depth to avoid changing the car's dimensions. This has increased drag but is compensated for by the unusual gap at the bottom of the rear screen ahead of the spoiler. This discontinuity causes a separation in the air flow from the rear window, creating longitudinal vortices which boost compression on the surface of the bottom of the windscreen, thereby reducing drag associated with the downforce generated by the spoiler. The shape of the rear wheelarch has also been crafted to guarantee efficient downforce generation. In fact, the lift naturally generated by the way the body curves over the wheelarches has been minimised by introducing an aerodynamic by-pass between the bodywork and the inner rear wheelarch. Rather than following the curvature of the flank in that area, which would create lift, the air flowing over the car's belt line enters the intake behind the rear quarterlight. It is then channelled into a duct that allows it to exit in front of the rear spoiler. The lift effect of the wheelarches is thus minimised, generating downforce without adding any extra drag.

AERODYNAMIC UNDERBODY

Three pairs of curved dams that act as vortex generators were adopted for the front underbody and are responsible for 30% of the increase in downforce compared to the F12berlinetta as demonstrated on the special F12tdf. The dams create a ground effect by generating powerful vortices and reducing the wake from the wheels to the absolute minimum, further boosting the flat underbody's downforce generation capabilities.
Unlike their F12tdf counterparts, the dams have new blowing slots which, by reducing overall pressure on the front side of the dams, boosts their efficiency, with the result that, despite the downforce generated remaining the same, drag introduced in the area is cut by 15%.
Because of the powerful suction created by the rear spoiler, the rear diffuser has been completely redesigned to enhance its extraction power. Firstly, the diffuser's trailing edge now features a wing in a deep recess created in the bumper. Air flows from both the lower and upper surfaces strike the splitter which extends across the entire width of the diffuser, boosting the downforce generated by the latter by 12%. Since the rear diffuser is one of the main contributors to downforce generation and the resulting drag, it has also been given a system of three active flaps which rotate to a 14° angle in the minimal drag configuration to completely stall the diffuser, thereby significantly reducing overall drag.



Design

812superfast

EXTERIOR

Designed by the Ferrari Styling Centre, the new 812 Superfast redefines the formal language of front-engined V12 Ferraris' proportions without altering either its exterior dimensions or interior space and comfort.
Seen in silhouette, the 812 Superfast has a fastback sleekness: a two-box design with a high tail reminiscent of the glorious 365 GTB4 (Daytona) of 1969, visually lowering an aggressive rear spoiler designed to guarantee downforce. The draped design of the flanks visually shortens the tail and is characterised by sharply slanted crease lines and impressively muscular wheelarches that imbue the 812 Superfast with the power and aggression warranted by its imposing V12.
The 812 Superfast's sumptuously sculptural, three-dimensional flanks are characterised by a striking vent behind the front wheels designed to suck high-pressure air from the wheelarches and then channel it along the doors.

The shape of the rear wheelarch has also been crafted to include an aerodynamic by-pass between the bodywork and the inner rear wheelarch. The air enters the intake behind the rear quarterlight. It is then channelled into a duct that allows it to exit in front of the rear spoiler, thereby helping boost aerodynamic efficiency.
The same theme reoccurs with the air intakes on the front bonnet, next to the headlights, which help cool the brakes, and the vents which evacuate hot air from the engine, thereby fairing the aerodynamic underbody and boosting downforce.

EXTERIOR

Full-LED headlights integrated into the design of the sculpted air intakes on the bonnet also emphasise that front muscle, integrating with, and wrapping around the front wheelarch.

There is also a very large front grille that fulfils a slew of roles: aside from engine air intake and cooling, there are also two air intakes at the sides for brake cooling and also for the new front passive aero device. At the sides, the grille design is ramped up by the presence of turning vanes designed to keep Cd low.

EXTERIOR

The rear window is deeply inset and characterised by a gap at its trailing edge which, together with the aggressive spoiler, delivers significant downforce over the rear of the car. Four round tail-lights inspired by Ferrari tradition emphasise a design crafted around horizontal lines and give the 812 Superfast a broad, imposing stance, visually lowering both spoiler and the very compact cabin without, however, sacrificing its space or that of the boot.

EXTERIOR

The rear underbody includes a suspended splitter that increases the diffuser surfaces by turning them into bi-plane wing, allowing the air to be drawn between the lower diffuser and the splitter.
At the sides are two air vents which, as with the front of the car, prevent high pressure build-ups in the rear wheelarch.

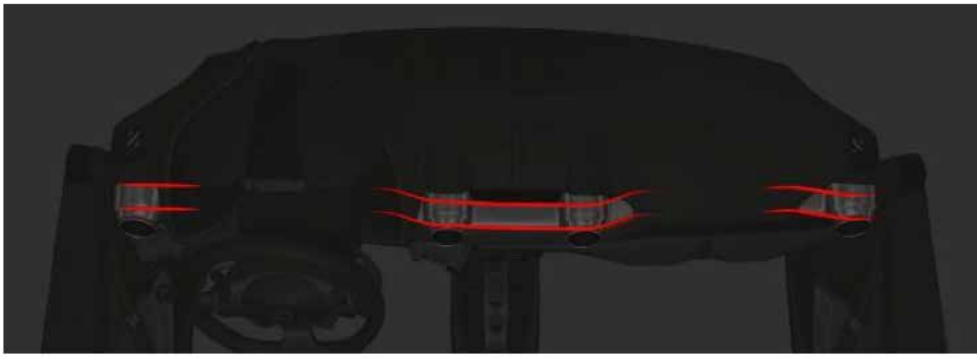
INTERIOR

The cabin has been radically redesigned to imbue it with an even sportier character. Light, compact volumes hug the contours of the interior structures to the extent that the latter are visible in certain areas. These ultra-taut surfaces are deliberately layered and broken up to create voids with the result that the main elements seem to float. The overall effect is of both thoroughbred racing eagerness and lean elegance that never feels overstated.

INTERIOR

Dash

The concept centres principally around the horizontal dash loops which stylishly around the central air vents for a sculptural yet supremely sporty look that is also a nod to the LaFerrari's cockpit.



An additional air vent also allowed the designers to lighten the look of the dash still further by creating a "cleft" in the central section that further emphasises the fact that metallic elements stretch out into the upholstered volumes.

INTERIOR

The driver zone and central recesses feature contrasting trim to further underscore their dynamic forms.

INTERIOR

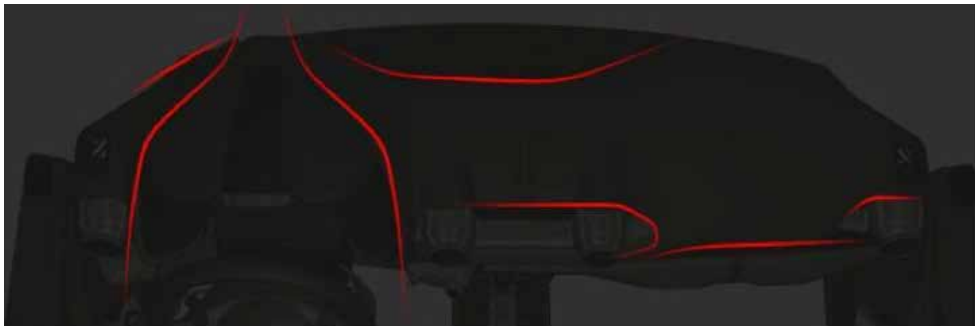
The steering wheel and its commands, the satellite pods on either side of it and the interplay of volumes and contrasting materials, combine to create an extreme cockpit in which all of the various elements are angled towards the all-important driver, around whom the volumes curve to highlight his role.

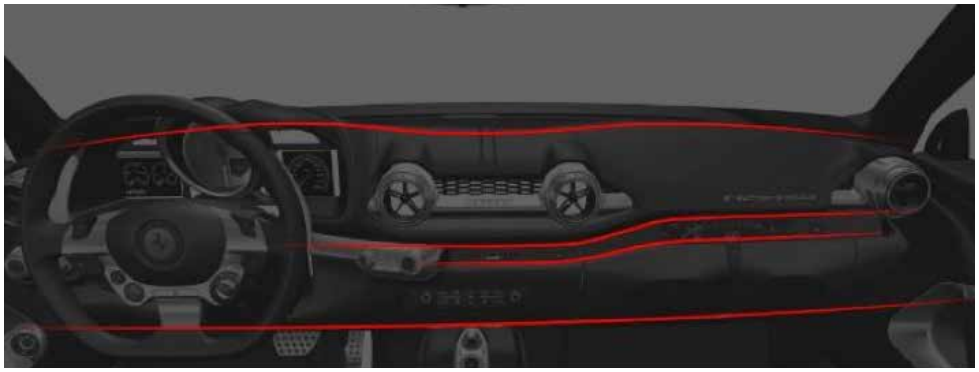
Horizontal character lines create very distinct driver-oriented volumes that also pull off the delicate feat of not excluding the passenger from the action.
This is thanks to:

- Plan and elevation view movement in the right-hand area of the cover bag
- Divider integrating climate control display and passenger display
- Under-dash area characterised by a particularly sporty glove compartment

Two features that brilliantly encapsulate the way the interior structure pushes the upholstered areas towards the passenger, further underscoring the look of lightness.

INTERIOR



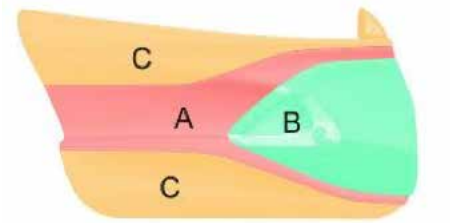


The beautifully crafted trimming both at the centre of the dash and around the glove compartment create the just right sense of Ferrari's signature combination of the artisanal and the high tech.

Door

The door panel follows a diapason design language that divides its volume into three areas: :

- A Comfort Area
- B Controls Area
- C Technical Area



This division is designed to differentiate the various areas and make their use both ergonomically intuitive. It has a three-pronged development:

- Volumetrically:

The soft sections of the contact zones are more structured in the technical areas, thus distinguishing the various functions by finish.

INTERIOR

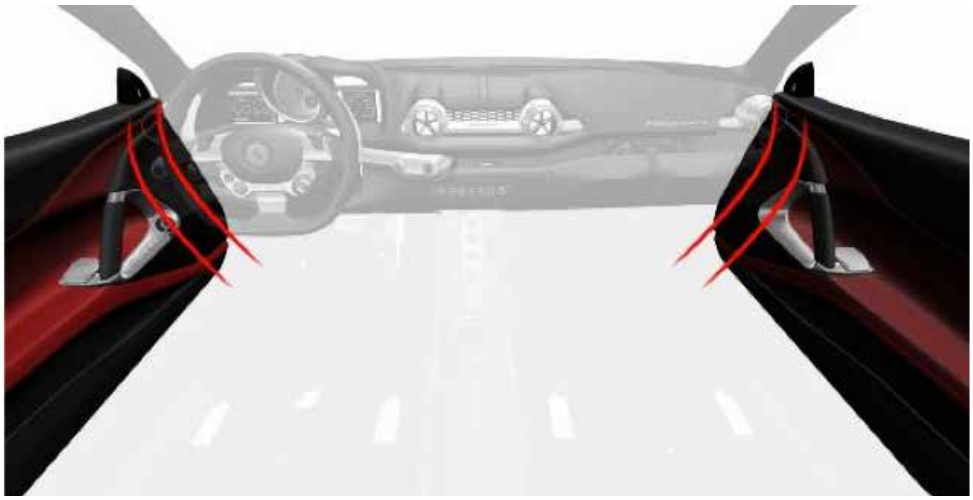
The various controls traditionally located on the panels have been clustered together to create an aluminium “controls” loop that characterises the unusual door handle area.

Graphic:
Contrasting finishes used for the various elements distinguish the three different areas by colour, setting them apart also on the basis of their functions.

Materials:
The contact areas are soft to the touch thanks to the use of leather or Alcantara, while the structural areas or those with controls are solid and robust, thanks to the use of aluminium.

INTERIOR

Other signature door features are the two side islands that wraparound and support the dash and handle area.



There is no volumetric connection between door and panel, but there is a conceptual link based on the horizontal looping theme of the dash.
This link was achieved through a chassis/structural-inspired interpretation of handle area and handle itself.

Specifically :

- The door handle area:

A bare structure that loops through a softer element which then connects to the dash where it melds thanks to voids that lighten the whole volume.

- Door handle:

This floats free of the handle area volume yet is also set close to the main structure to sleek effect. It differs from the latter in terms of its volumes and function of rest of the area.
A wonderfully sporty yet elegant detail.

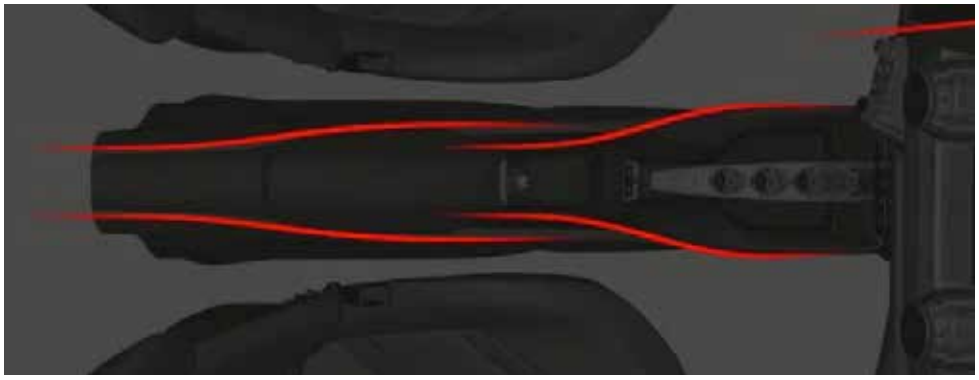
INTERIOR

Tunnel

As per tradition, the central tunnel is separate from the dash but a seamless part of the surrounding elements. This is part of Ferrari DNA and feels light and spare as well as sporty.

This element too follows the main diapason design theme and, like the dash and the panel, features visible structural elements.
The same conceptual approach taken with the door panel clearly marks out the various areas on the basis of shape and finish.

INTERIOR



Starting from the rear area:
This is where the diapason design theme kicks off and creates the armrest area beneath which the main structure with its various functional elements passes and is hidden:

- Key stow
- Cup Holder
- Electric window buttons

The longitudinal movement of the structure is underscored and enhanced by the contrasting colour of the upholstered elements that run alongside it towards the front area, creating two side cushions: one for the driver and the other for the passengers. These also wrap around a large odds and ends compartment over which towers the iconic F1 Bridge.

This gem, a modern reworking of the historic “H-gate”, sits at the centre of the cockpit, and with the steering wheel, is a classic feature of any Ferrari.

INTERIOR

Seats

The seats follow a diapason design language and exploit that expansiveness to create an interplay of solids and voids that lend character to the seat and backrest. The seats differ from and contrast with the rest of the interior surfaces, thanks to their perforated leather trim which adds a sporty touch to the new styling.
In short, taut forms and cleverly structured volumes combine with superb ergonomics and a light sporty language to yield a top-of-the-range seat.

INTERIOR

Finish and boot

Dynamism and usability are the key words for the storage areas in the interior. This improved capacity, thanks to large areas dedicated to luggage, and the ease of extending those, thanks to a mobile parcel shelf, make the rear of the cabin very functional and beautifully crafted but uncompromisingly sporty.

In-car comfort

812superfast

STEERING WHEEL

HMI (Human Machine Interface)

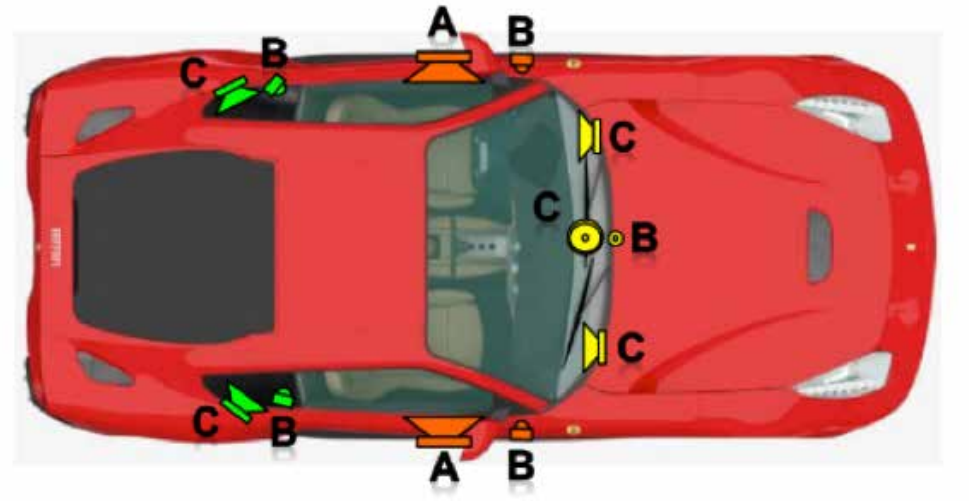
The Human-Machine Interface has also evolved to suit the Ferrari 812 SUPERFAST and introduces the brand-new Ferrari steering wheel. The latter has been completely redesigned and, as a result, is more compact. The controls are new and different in shape, function and positioning, all with the aim of further improving ergonomics and ease of use.

Specifically:

- The indicator controls can now also be used via paddles behind the steering wheel
- The windshield wiper switch has been moved and a roller with various different settings has been added to simplify selecting the desired function
- The horn has been moved from the outer rim to the centre of the steering wheel.

HI-FI & HI-FI PREMIUM

To further enhance the basic Hi-Fi system which has a 8-channel Amp and 6 speakers, the Hi-Fi premium (optional) audio system JBL Professional® developed specifically for Ferrari 812 SUPERFAST offers a unique audio experience of listening to all occupants in the car comparable with an experience of a live concert, enabled by a 12-channel 1500W Amp and 12 neodymium HiE speaker with QuantumLogic® Surround Sound technology. Moreover, the use of optical fiber guarantees an superbly pure& powerful sound.



- 2 * 200mm Woofer (A) in the door panels.
- 5 * 25mm Ceramic Tweeter(B) in upper panel, door panels & rear side panels;
- 5 * 100mm Kevlar Midrange Speaker (C) in upper panel & rear side panels

The performance of the Hi-F premium system:

- 10% improvement vs F12 Berlinetta
- 10% improvement vs 488 GTB
- In line with GTC4Lusso

AC COMMAND

812 SUPERFAST equipped Ferrari's new generation AC control panel, which communicates directly with a non-touch display which shows: zonal temperature (Driver & co-pilot) and flow.

PASSENGER DISPLAY

Ferrari's latest passenger display system is available on Ferrari 812 SUPERFAST, which sums up all innovation available in the market.

The 8.8" colour Full Touch screen has a maximum resolution of 1240 x 140 pixels (full HD) and is completely integrated with 812 SUPERFAST's onboard systems and synchronized with the driver infotainment cockpit.

The new passenger display allows to visualize many information to the passenger, synchronize with the driver's instrument cockpit. Moreover, to interact with on board infotainment system via touch screen:

- PERF: Current gear, Rev, speed & G-force
- Radio and Media resource management through Cover Flow with By category search function
- Active turn by turn Navigation
- Indication of the autonomy research of the fuel station nearby.
- VDA (Manettino Position, and mechanical & electrical systems configuration information on board)

PASSENGER DISPLAY

INFOTAINMENT & APPLE CAR PLAY

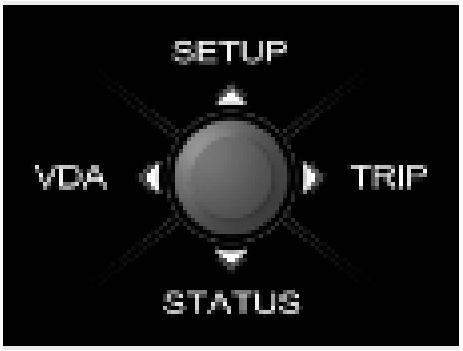
Another huge improvement on the 812 SUPERFAST is Ferrari's new infotainment system which debuts on GTC4Lusso. In line with Ferrari sports cars' cockpit's philosophy of keeping everything to hand, the infotainment screen is part of 812 SUPERFAST's instrument cluster.

TFT SX	TFT DX
Vehicle Dynamic Assistance	NEW Infotainment
Car Status	Virtual Speedometer
TRIP	Performance
Instrument setup	Media
Front and rear parking sensors (optional)	Navi
	Phone
	Instrument setup
	Telemetry (optional)
	Apple Car Play/Mirror Link (optional)
	Parking camera (optional)

INFOTAINMENT & APPLE CAR PLAY

TFT SX

As in the F12 Berlinetta, the left-hand pod has the controls for the display which features Vehicle Dynamic Assistance and Vehicle Status readouts.
In manettino RACE, CT OFF and CST OFF modes, the VDA provides genuine instant-to-instant technical support by evaluating the vehicle status and performance levels it is capable of delivering. It makes driving more involving and safer too as it tells drivers the optimum usage conditions for the car.

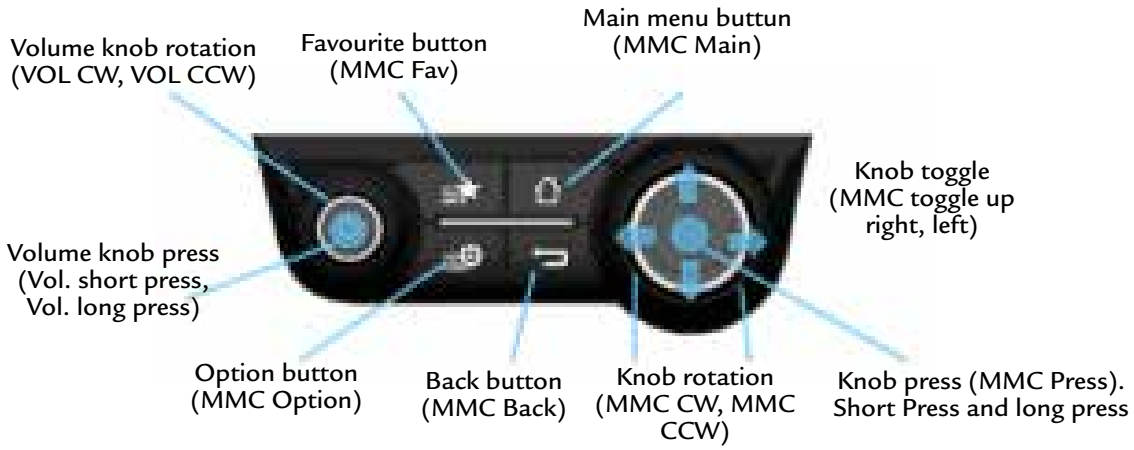


TFT DX

Ferrari's new completely redesigned and simplified HMI is adapted to 812 SUPERFAST's sports car cockpit. The new ultra-intuitive infotainment system further improves 812 SUPERFAST's on-board experience compared with the F12 Berlinetta, and allow all its features be used to the fullest.

INFOTAINMENT & APPLE CAR PLAY

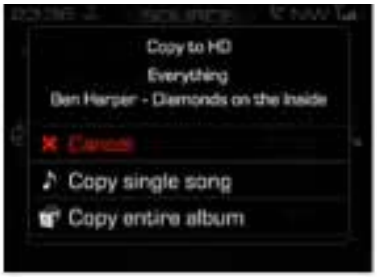
The Infotainment can be navigated via a physical control (MMC) , Steering wheel controls (i.e. SWC) are also part of the system and interact with functionalities



INFOTAINMENT & APPLE CAR PLAY

Media Management through Cover Flow, with search & saving function

Sat nav with 3D maps



On-board phone connection

Multi system and input language option

Connectivity via Apple CarPlay / MirrorLink (Optional)

Telemetry function (optional)

Illustrations

812superfast

Tappeto colore a scelta

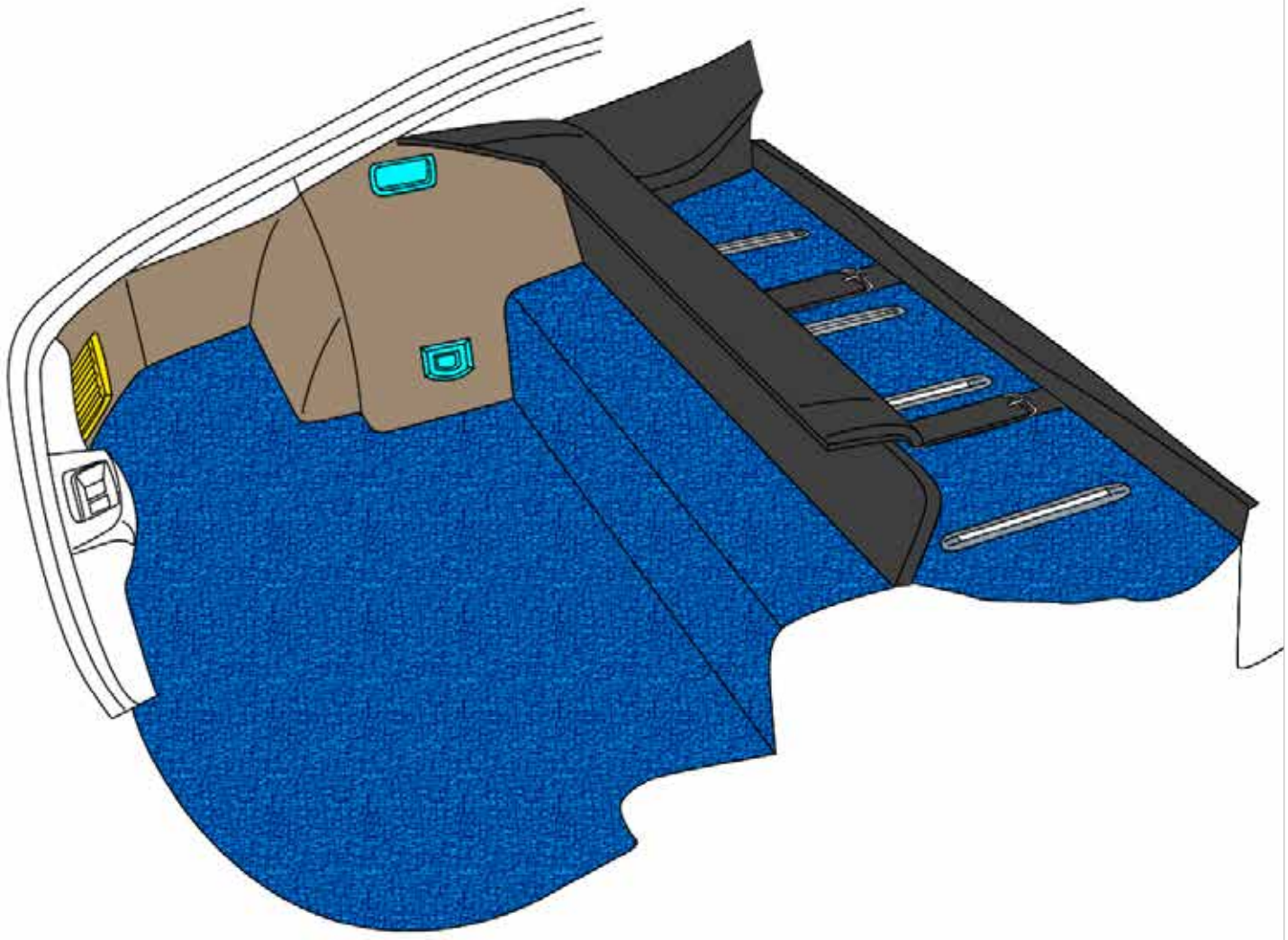
Pelle Nera

Alcantara Nera

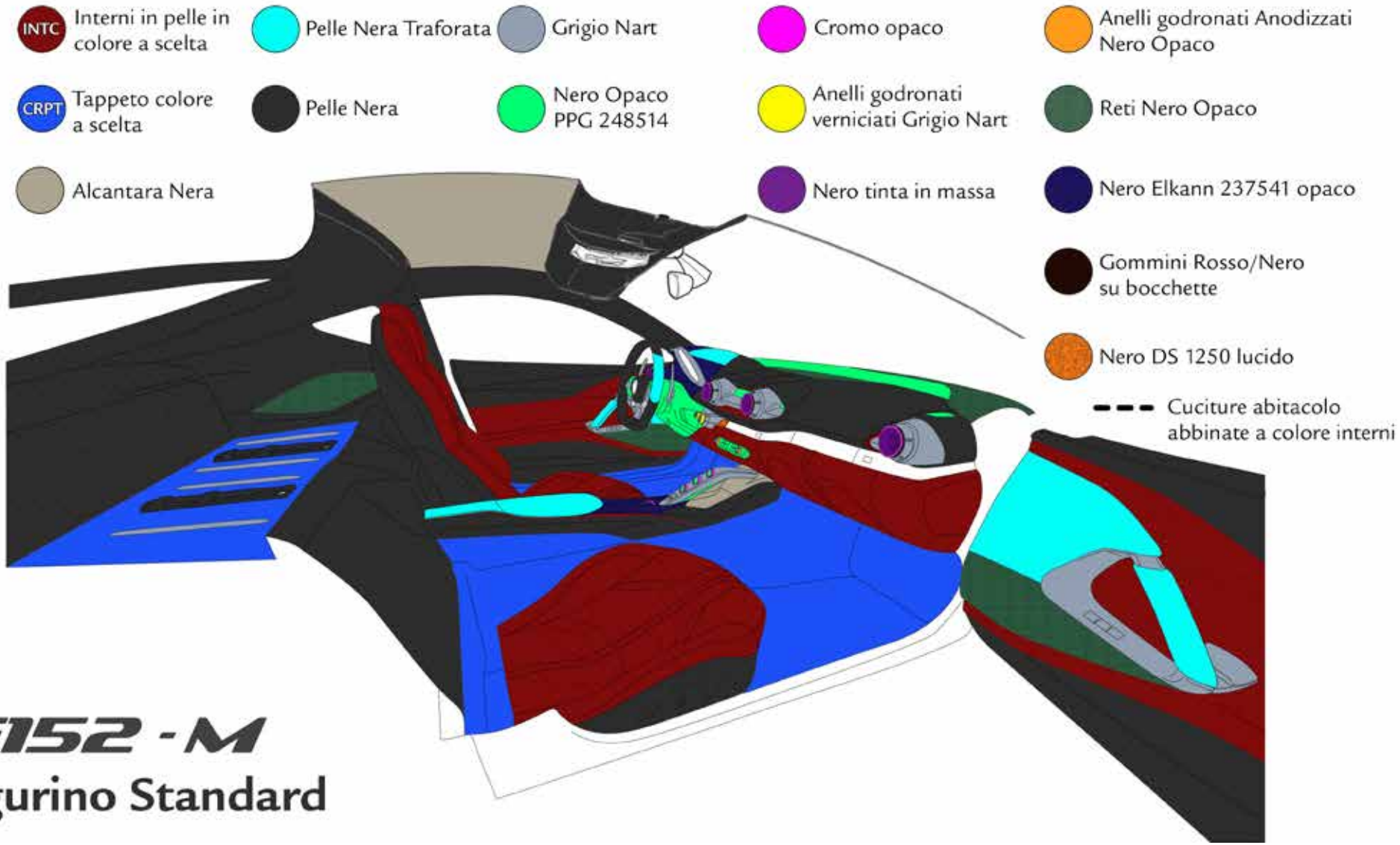
Grigio Nart

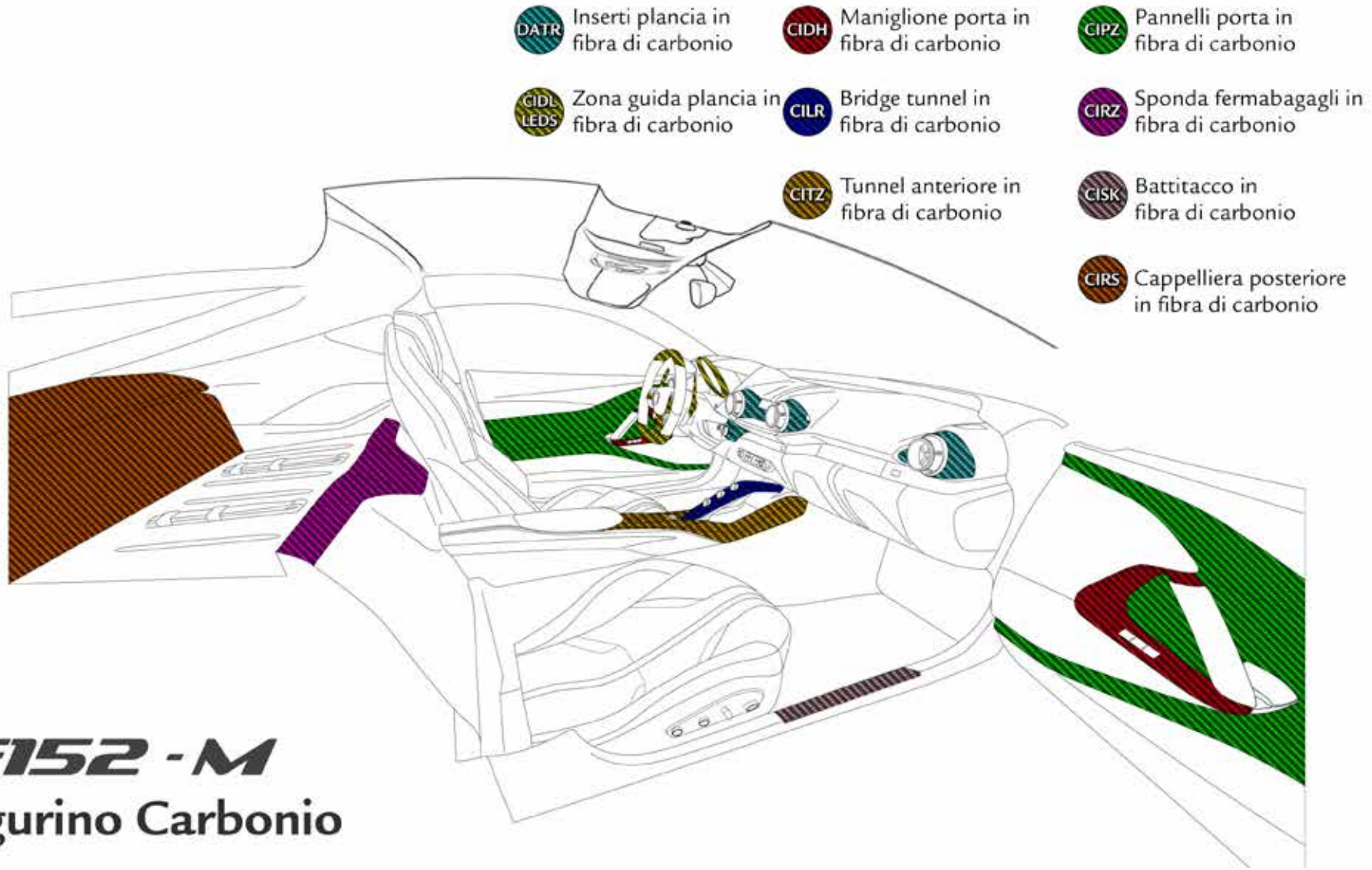
Tinta Pelle

Std



Figurino Base Baule 152M 20-10-2016


INTC
Interni in pelle in colore a scelta
Pelle Nera Traforata
Grigio Nart
Cromo opaco
Anelli godronati Anodizzati Nero Opaco
CRPT
Tappeto colore a scelta
Pelle Nera
Nero Opaco PPG 248514
Anelli godronati verniciati Grigio Nart
Reti Nero Opaco
Alcantara Nera
Nero tinta in massa
Nero Elkann 237541 opaco
Gommini Rosso/Nero su bocchette
Nero DS 1250 lucido
Cuciture abitacolo abbinate a colore interni
F152 - M
Figurino Standard



F152 - M

Figurino Carbonio

ALIH Cielo vettura in Alcantara® a scelta

UALZ Parte alta abitacolo in Alcantara® a scelta

CTUA Tunnel superiore in Alcantara® a scelta

ALDT Dettagli abitacolo in Alcantara® a scelta

STWA Volante guida in Pelle/Alcantara® a scelta

ALIC Tappeto in Alcantara® a scelta

ALCS Centrale sedili in Alcantara® a scelta

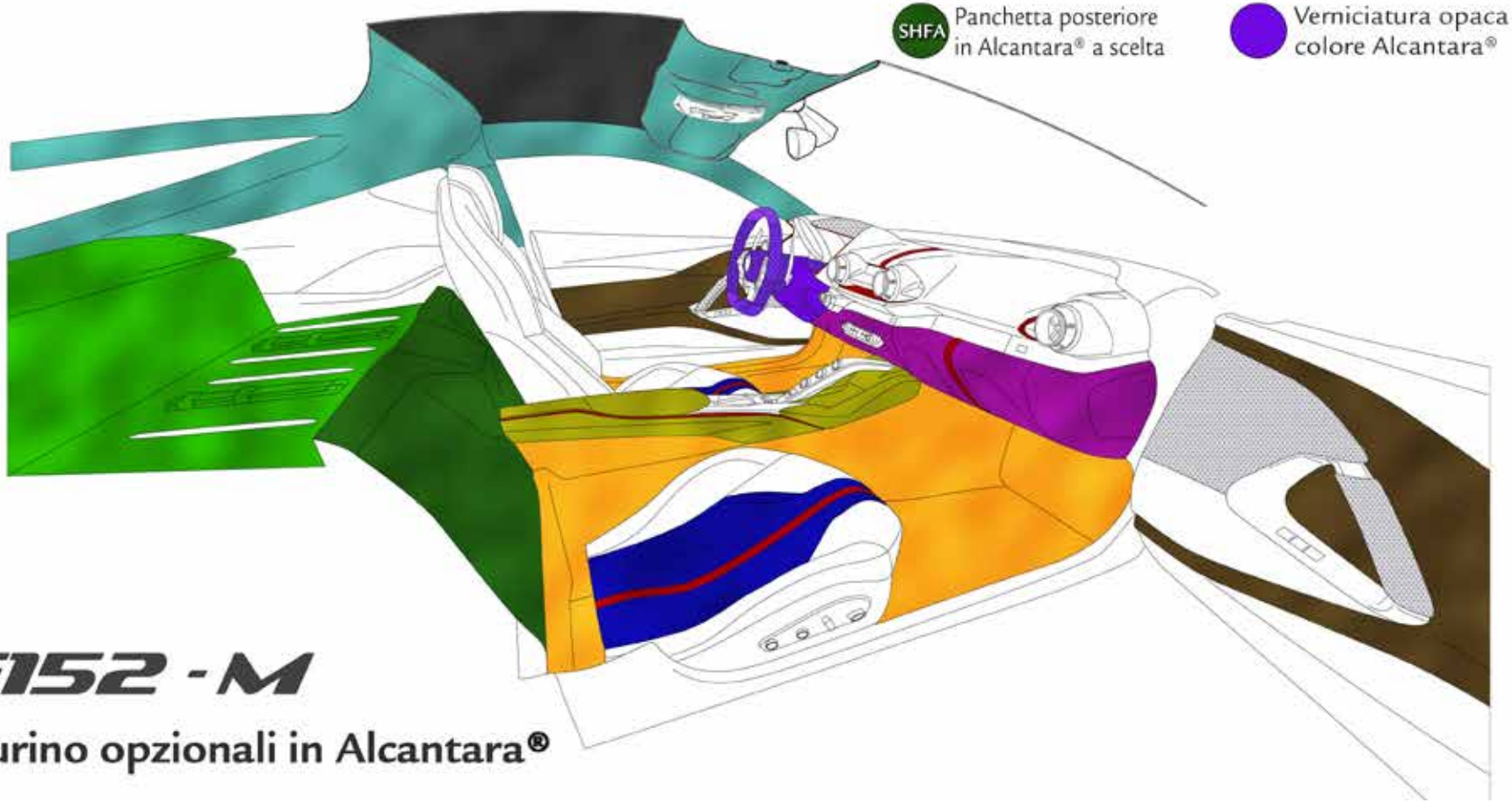
DSIA Plancia inferiore in Alcantara® a scelta

SHF5 Cappelliera posteriore in Alcantara® a scelta

ALDP Centrale pannello porta in Alcantara® a scelta

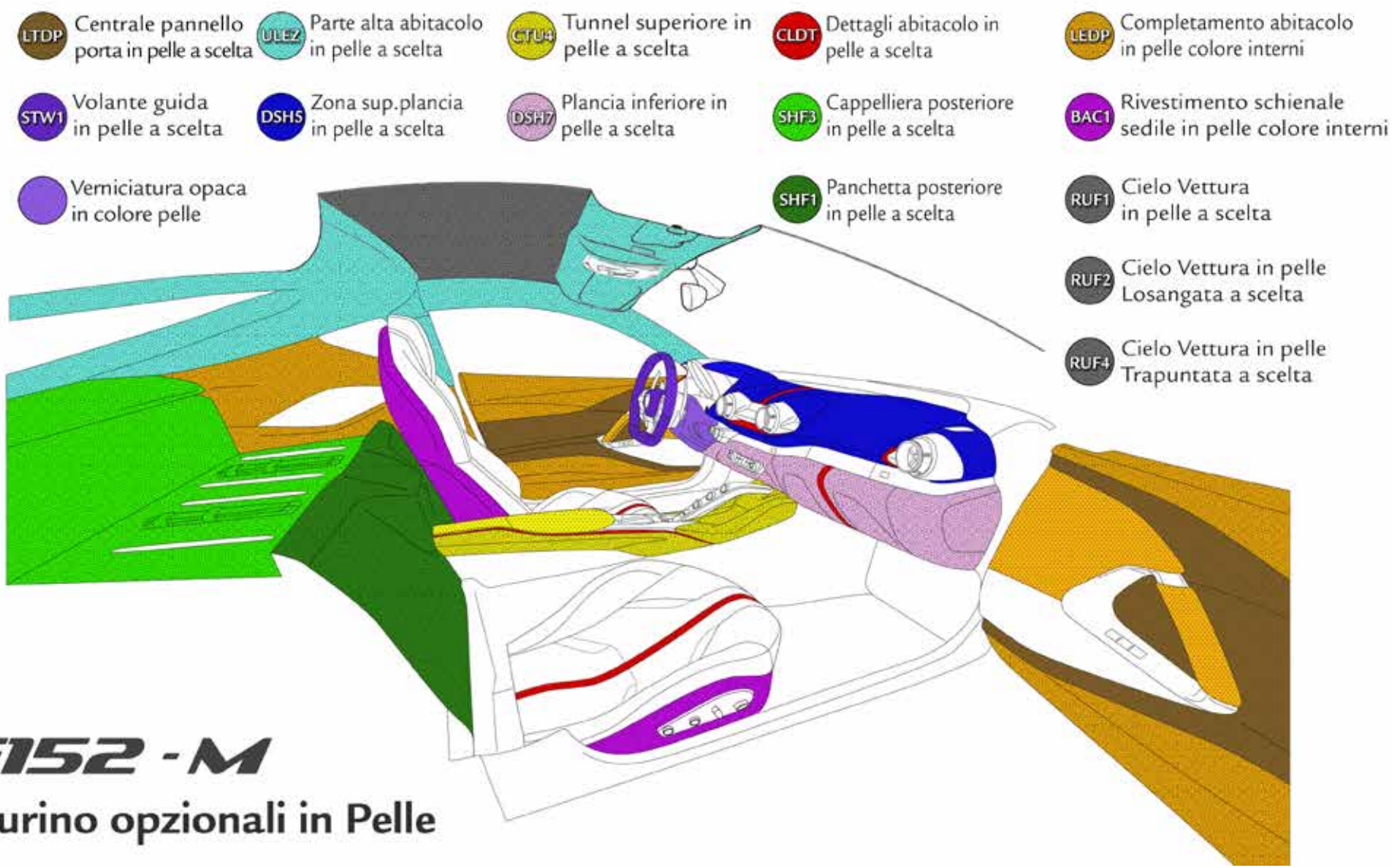
SHFA Panchetta posteriore in Alcantara® a scelta

Verniciatura opaca in colore Alcantara®



F152 - M

Figurino opzionali in Alcantara®

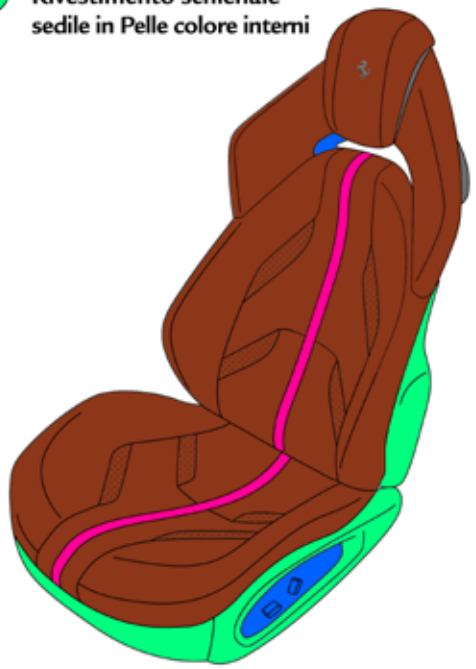

LTDP
Centrale pannello porta in pelle a scelta
ULEZ
Parte alta abitacolo in pelle a scelta
CTU4
Tunnel superiore in pelle a scelta
CLDT
Dettagli abitacolo in pelle a scelta
LEDP
Completamento abitacolo in pelle colore interni
STW1
Volante guida in pelle a scelta
DSH5
Zona sup.plancia in pelle a scelta
DSH7
Plancia inferiore in pelle a scelta
SHF3
Cappelliera posteriore in pelle a scelta
BAC1
Rivestimento schienale sedile in pelle colore interni
Verniciatura opaca in colore pelle
SHF1
Panchetta posteriore in pelle a scelta
RUF1
Cielo Vettura in pelle a scelta
RUF2
Cielo Vettura in pelle Losangata a scelta
RUF4
Cielo Vettura in pelle Trapuntata a scelta
F152 - M
Figurino opzionali in Pelle

F152 - M

Figurino Opzionali Sedile Base

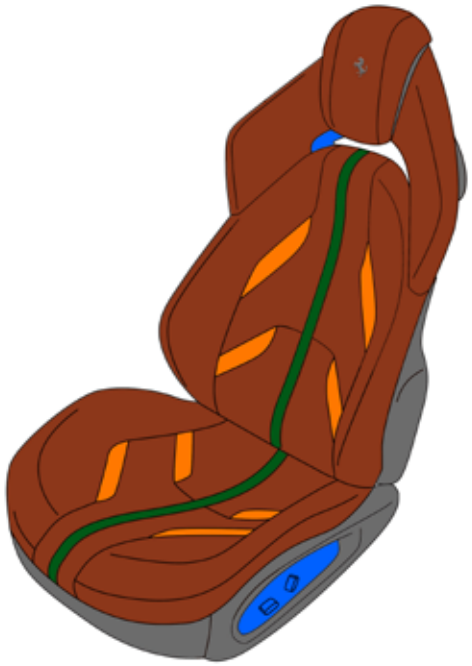
Base

- INTC — Pelle a scelta
- Pelle a scelta Traforata
- Pelle Nera
- Nero Groffato
- CLDT — Dettagli Abitacolo in Pelle a Scelta
- BACS — Rivestimento schienale sedile in Pelle colore interni



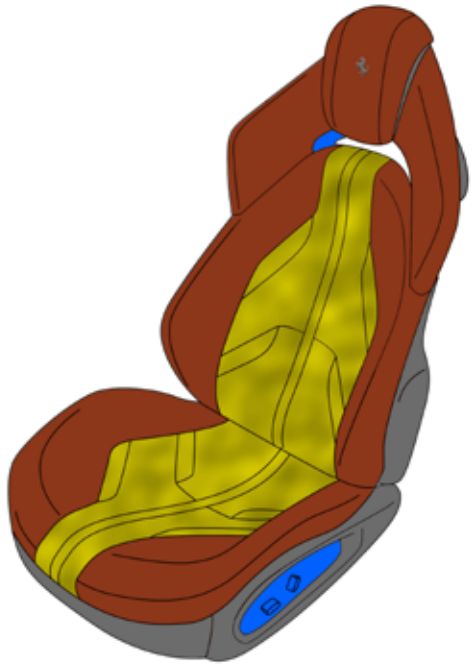
Base

- INTC — Pelle a scelta
- Pelle Nera
- Nero Groffato
- PIPS — Inserto in Alcantara® in colore interni
- ALDT — Dettagli abitacolo in Alcantara® a scelta



Base

- INTC — Pelle a scelta
- Pelle Nera
- Nero Groffato
- ALCS — Centrale sedili in Alcantara® a scelta

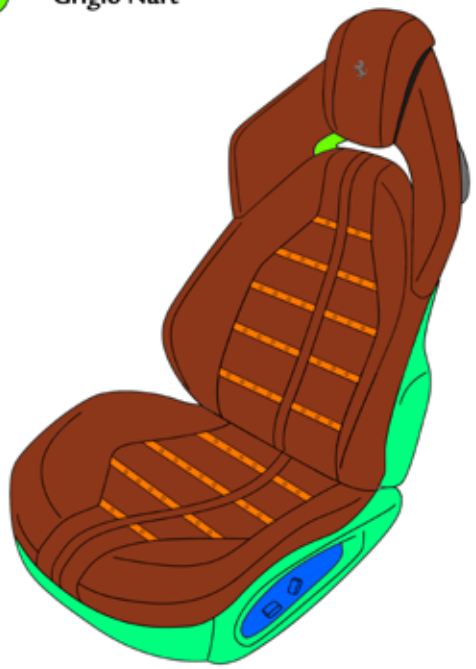


F152 - M

Figurino Opzionali Sedile Daytona

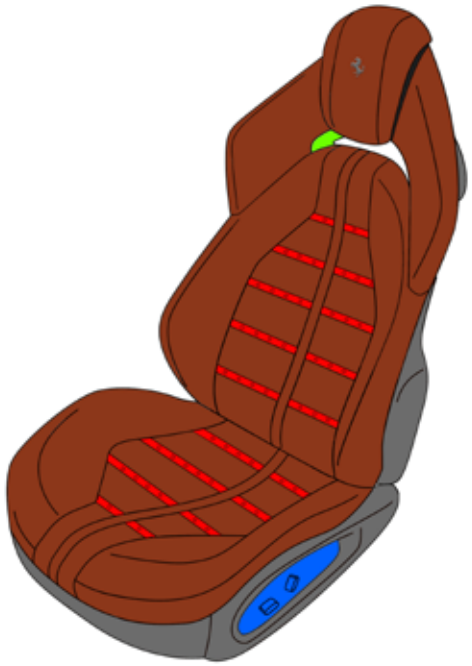
Opt Daytona

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- STP1 — Dettagli Abitacolo in Pelle a Scelta
- BAC1 — Rivestimento schienale sedile in Pelle colore interni
- Grigio Nart



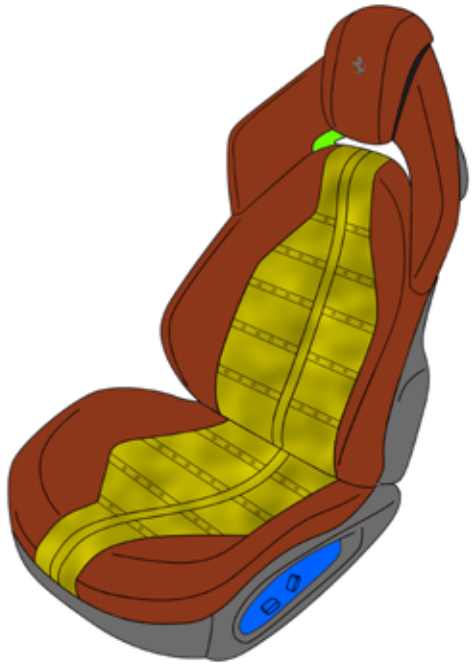
Opt Daytona

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- STP2 — Inserti Daytona in Alcantara® a scelta
- Grigio Nart



Opt Daytona

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- ALCS — Centrale sedili in Alcantara® a scelta
- Grigio Nart



F152 - M

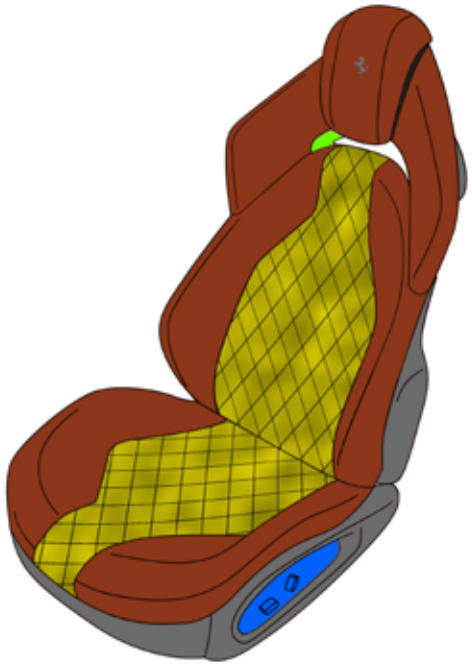
Figurino Opzionali Sedile Losangato

Opt Losangato

- INTC — Pelle a scelta
- Grigio Nart
- Pelle Nera
- Nero Opaco PPG 248514
- RACI — Rivestimento schienale sedile in Pelle colore interni

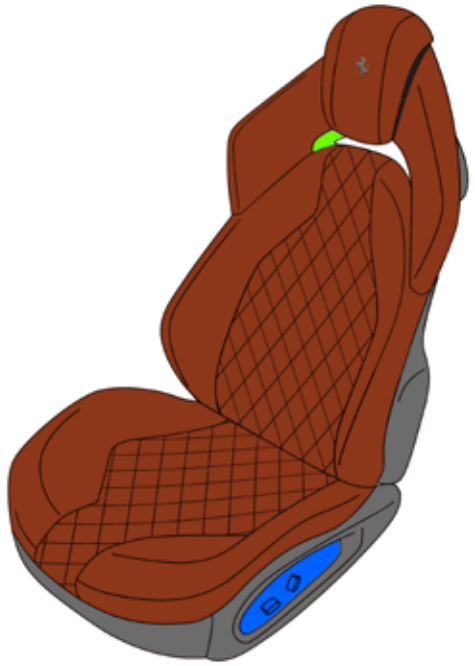
Opt Losangato

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- Grigio Nart
- ALCS — Centrale sedili in Alcantara®



Opt Losangato

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- Grigio Nart

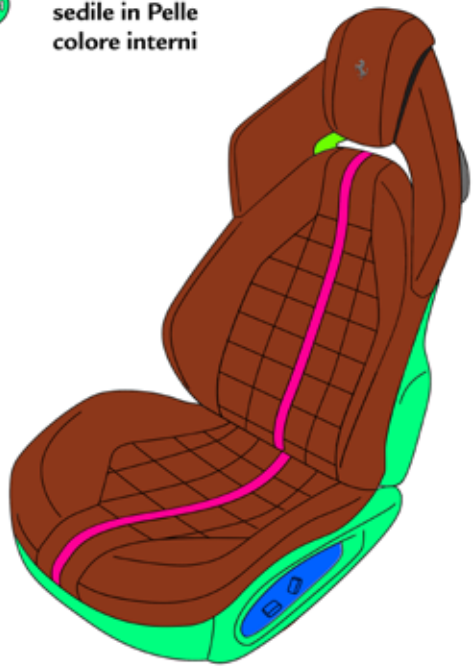


F152 - M

Figurino Opzionali Sedile Trapuntato

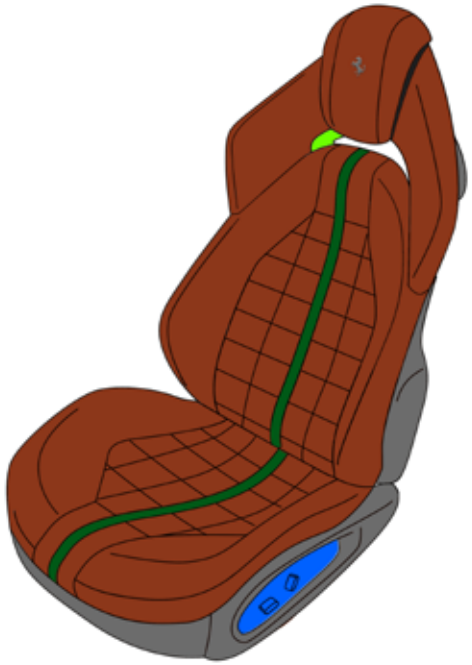
Opt Trapuntato

- INTC — Pelle a scelta
- Grigio Nart
- Pelle Nera
- Nero Opaco PPG 248514
- CLDT — Dettagli Abitacolo in Pelle a Scelta
- BAE1 — Rivestimento schienale sedile in Pelle colore interni



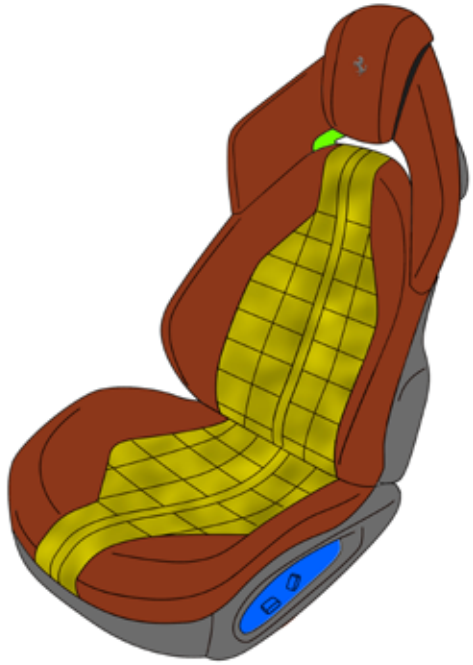
Opt Trapuntato

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- Grigio Nart
- ALDT — Dettagli abitacolo in Alcantara® a scelta



Opt Trapuntato

- INTC — Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- ALCS — Centrale sedili in Alcantara® a scelta
- Grigio Nart

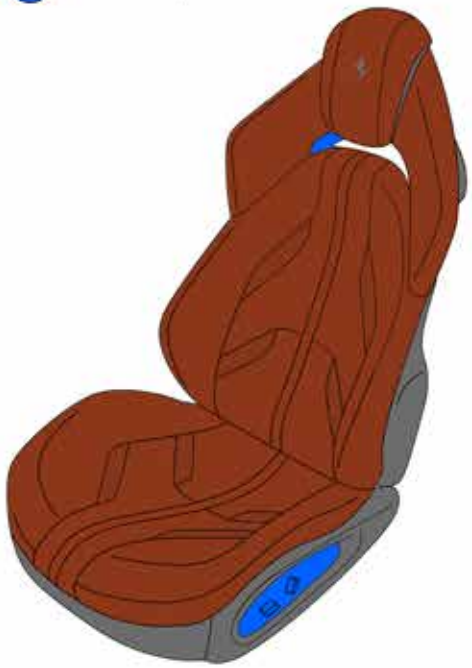


F152 - M

Figurino Sedile Base

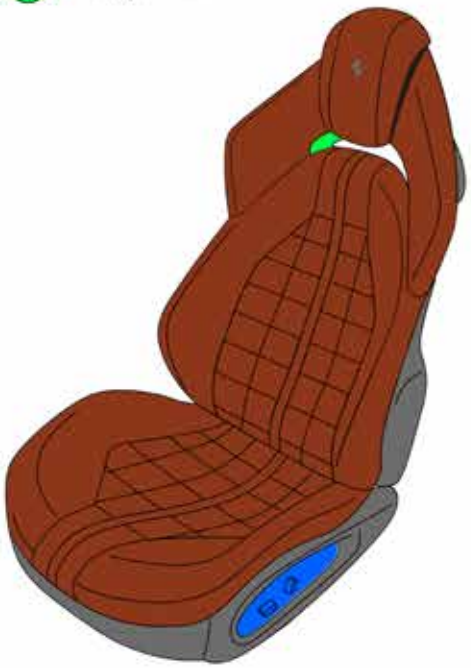
Base

- INTC Pelle a scelta
- Pelle a scelta Traforata
- Pelle Nera
- Nero Opaco PPG 248514



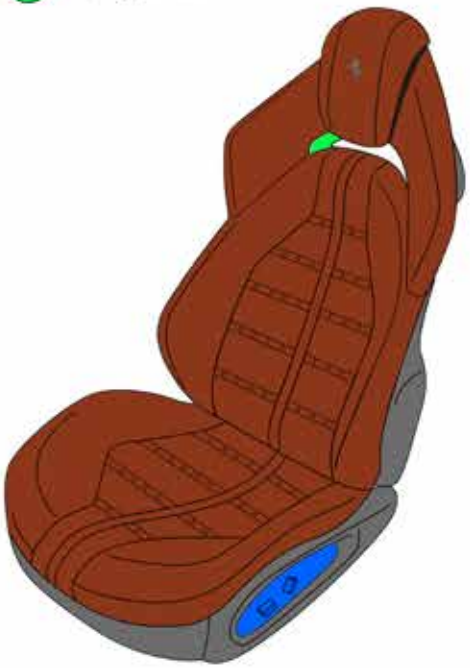
Opt Trapuntato

- INTC Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- Grigio Nart



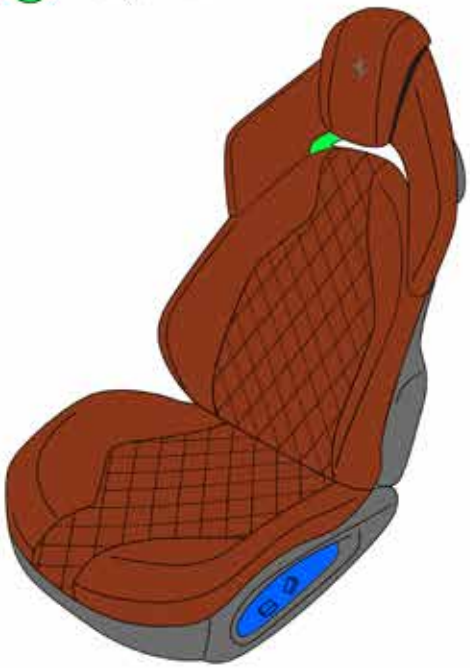
Opt Daytona

- INTC Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- Grigio Nart



Opt Losangato

- INTC Pelle a scelta
- Pelle Nera
- Nero Opaco PPG 248514
- Grigio Nart

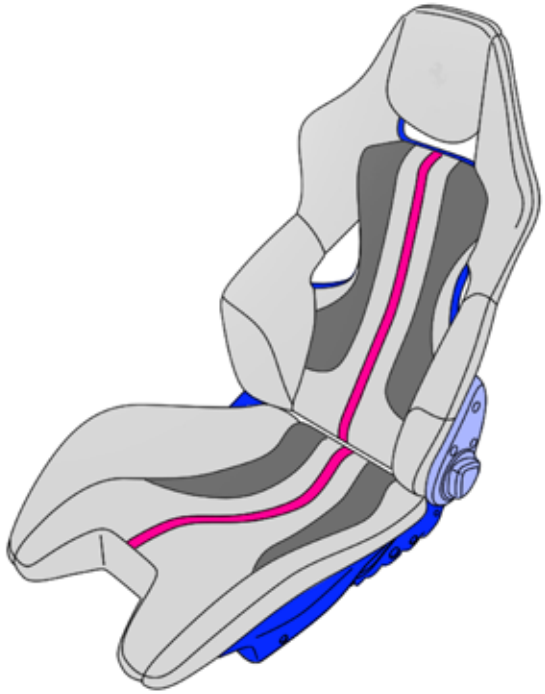


F152 - M

Figurino Opzionali Sedile Racing Corsa (RSCH)

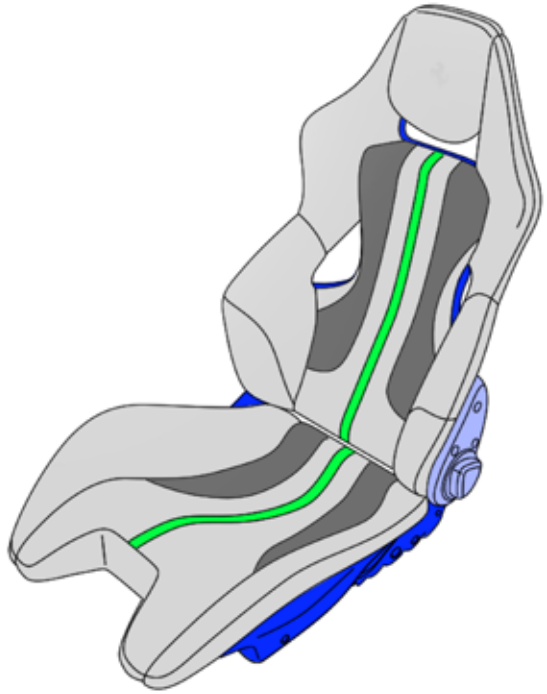
Opt Pelle

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- Alcantara Nera Traforata Starlight
- INTC — Pelle a scelta
- CLDT — Dettagli Abitacolo in Pelle a scelta



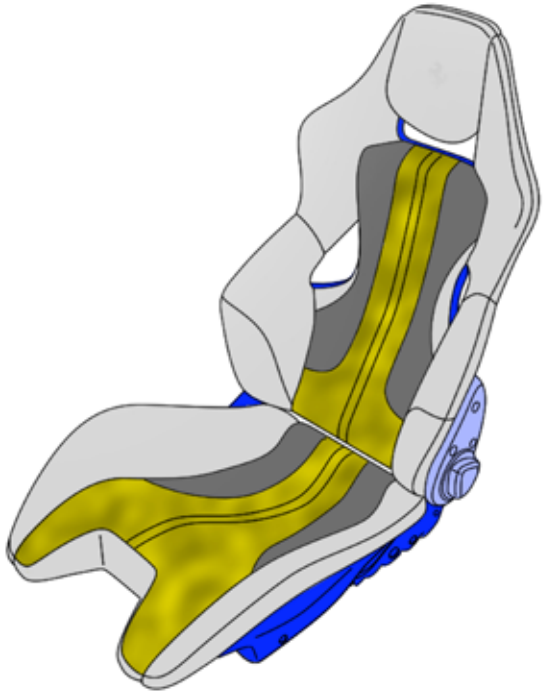
Opt Alcantara

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- Alcantara Nera Traforata Starlight
- INTC — Pelle a scelta
- ALDT — Dettagli abitacolo in Alcantara® a scelta



Opt Alcantara

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- Alcantara Nera Traforata Starlight
- INTC — Pelle a scelta
- ALCS — Centrale sedili in Alcantara® a scelta

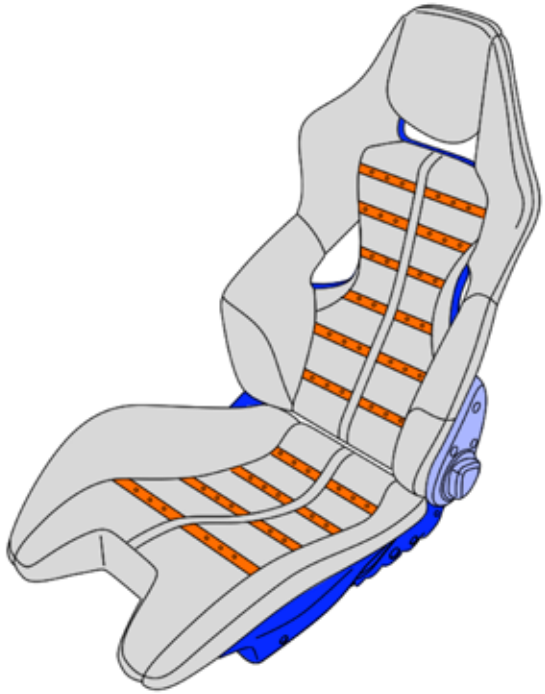


F152 - M

Figurino Opzionali Sedile Racing Daytona (RSCD)

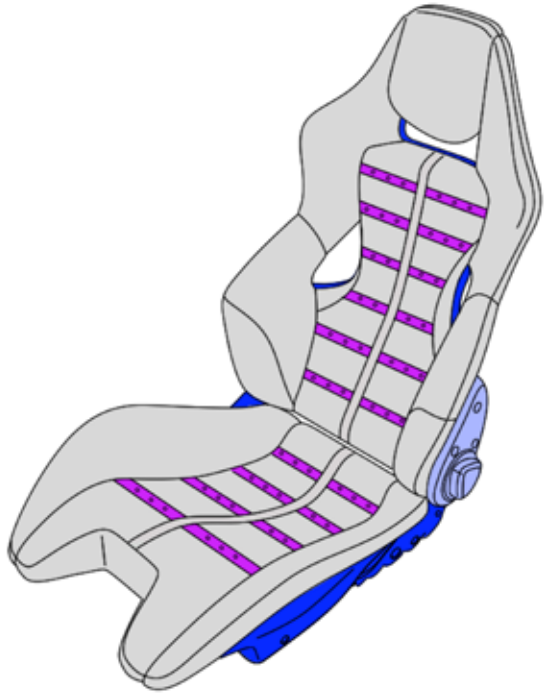
Opt Pelle

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- INTC — Pelle a scelta
- STP1 — Inserti Daytona in Pelle a scelta



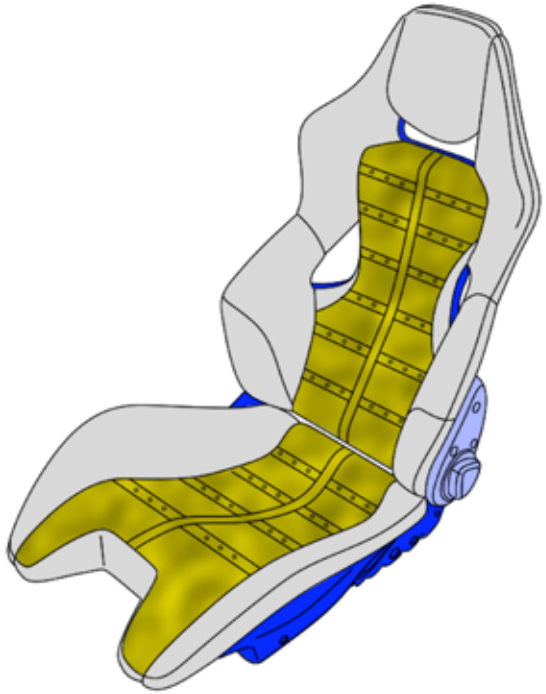
Opt Alcantara

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- INTC — Pelle a scelta
- STP2 — Inserti Daytona in Alcantara® a scelta



Opt Alcantara

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- INTC — Pelle a scelta
- ALCS — Centrale sedili in Alcantara® a scelta



Figurino sedile monoscocca in pelle
Leather super racing seat configuration

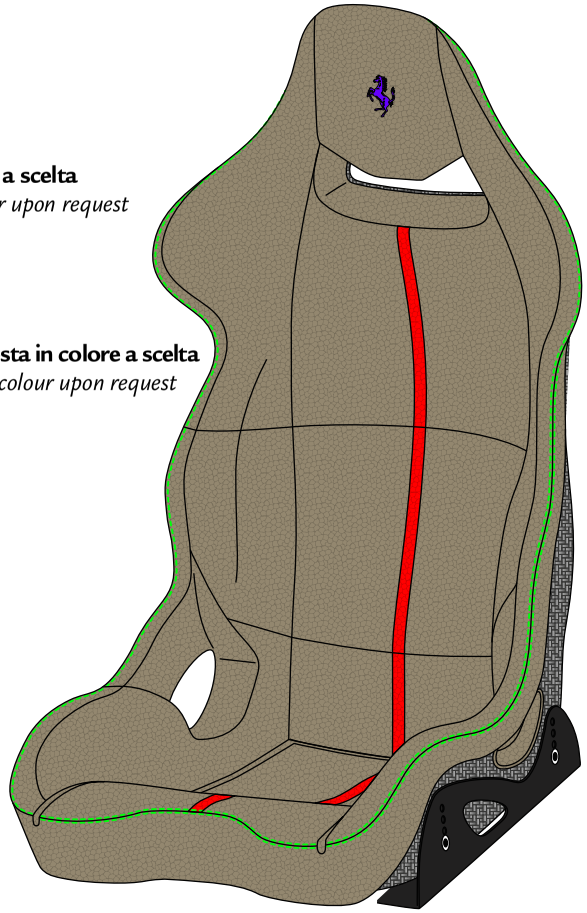
INTC **Pelle in colore a scelta**
Leather colour upon request

Carbonio lucido
Glossy carbon fibre

CLDT **Dettagli abitacolo in Pelle a scelta**
Leather interior details colour upon request

STC1/ STC2 **Cuciture in colore a scelta**
Stitching colour upon request

EMPH **Cavallini cuciti su poggiatesta in colore a scelta**
Embroidered prancing horse colour upon request



Figurino sedile monoscocca in alcantara
Alcantara super racing seat configuration

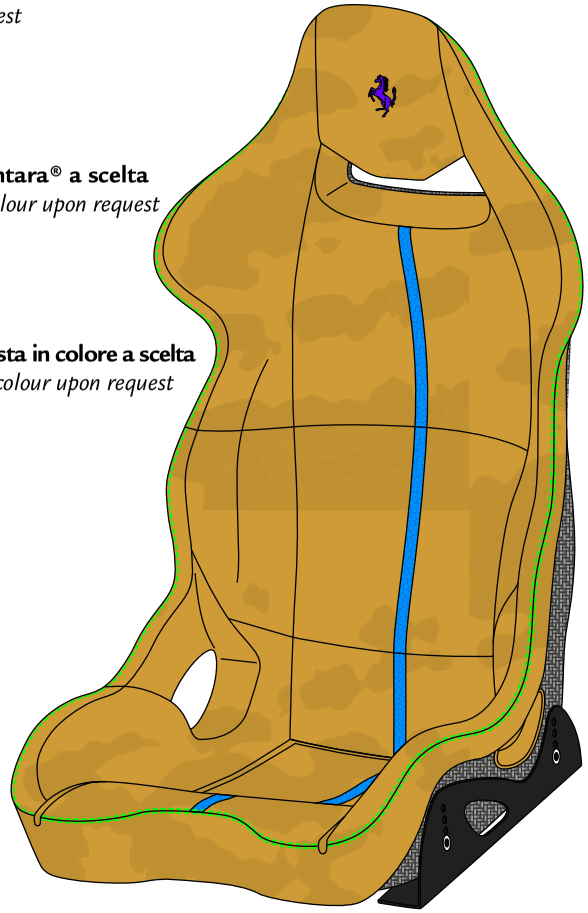
INTA **Alcantara® In colore a scelta**
Alcantara® colour upon request

Carbonio lucido
Glossy carbon fibre

ALDT **Dettagli abitacolo in Alcantara® a scelta**
Alcantara® interior details colour upon request

STC1/ STC2 **Cuciture in colore a scelta**
Stitching colour upon request

EMPH **Cavallini cuciti su poggiatesta in colore a scelta**
Embroidered prancing horse colour upon request

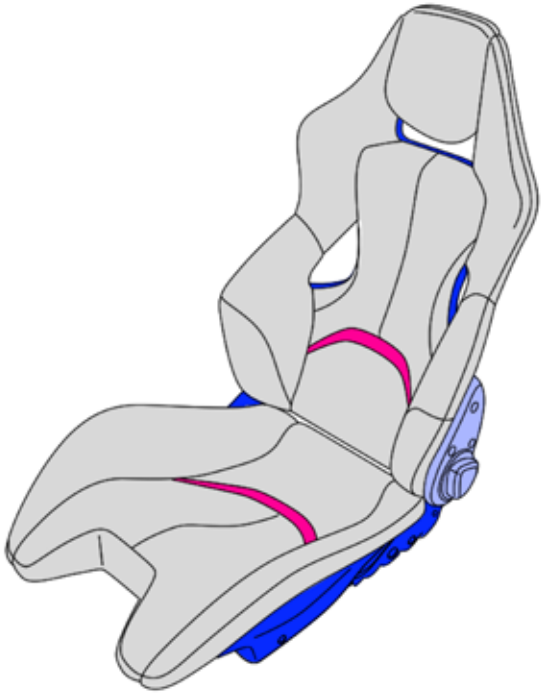


F152 - M

Figurino Opzionali Sedile Racing Nuovo Stile (SRSC)

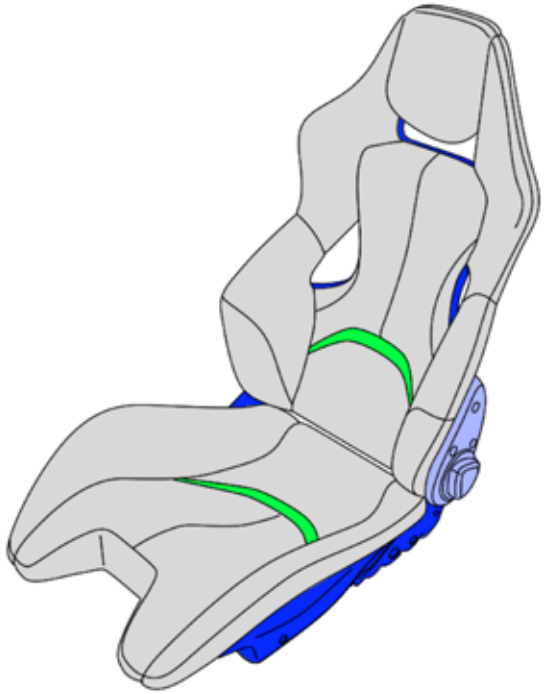
Opt Pelle

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- INTC — Pelle a scelta
- CLDT — Dettagli Abitacolo in Pelle a scelta



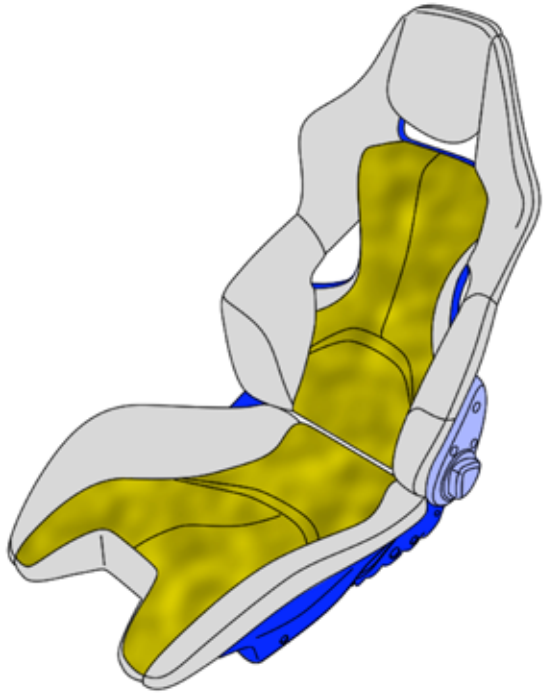
Opt Alcantara

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- INTC — Pelle a scelta
- ALDT — Dettagli abitacolo in Alcantara® a scelta



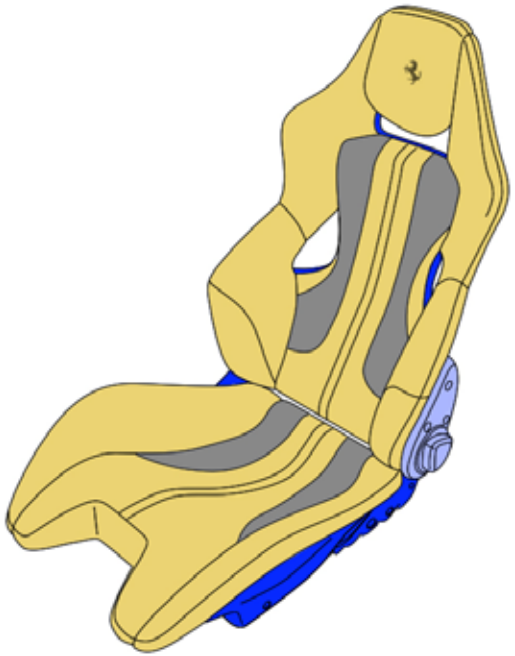
Opt Alcantara

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- INTC — Pelle a scelta
- ALCS — Centrale sedili in Alcantara® a scelta



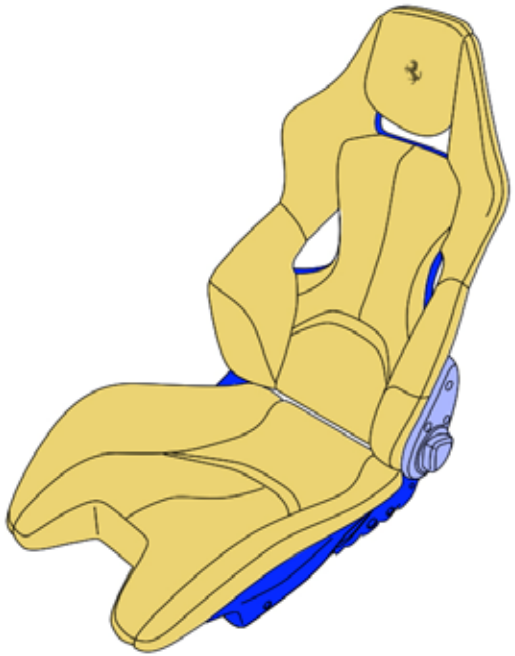
Base

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- Alcantara Nera Traforata Starlight
- Pelle Nera



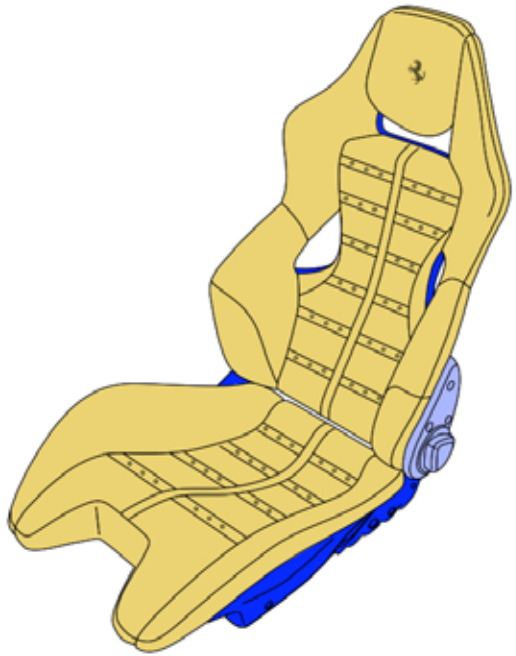
Opt Nuovo

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- Pelle a scelta

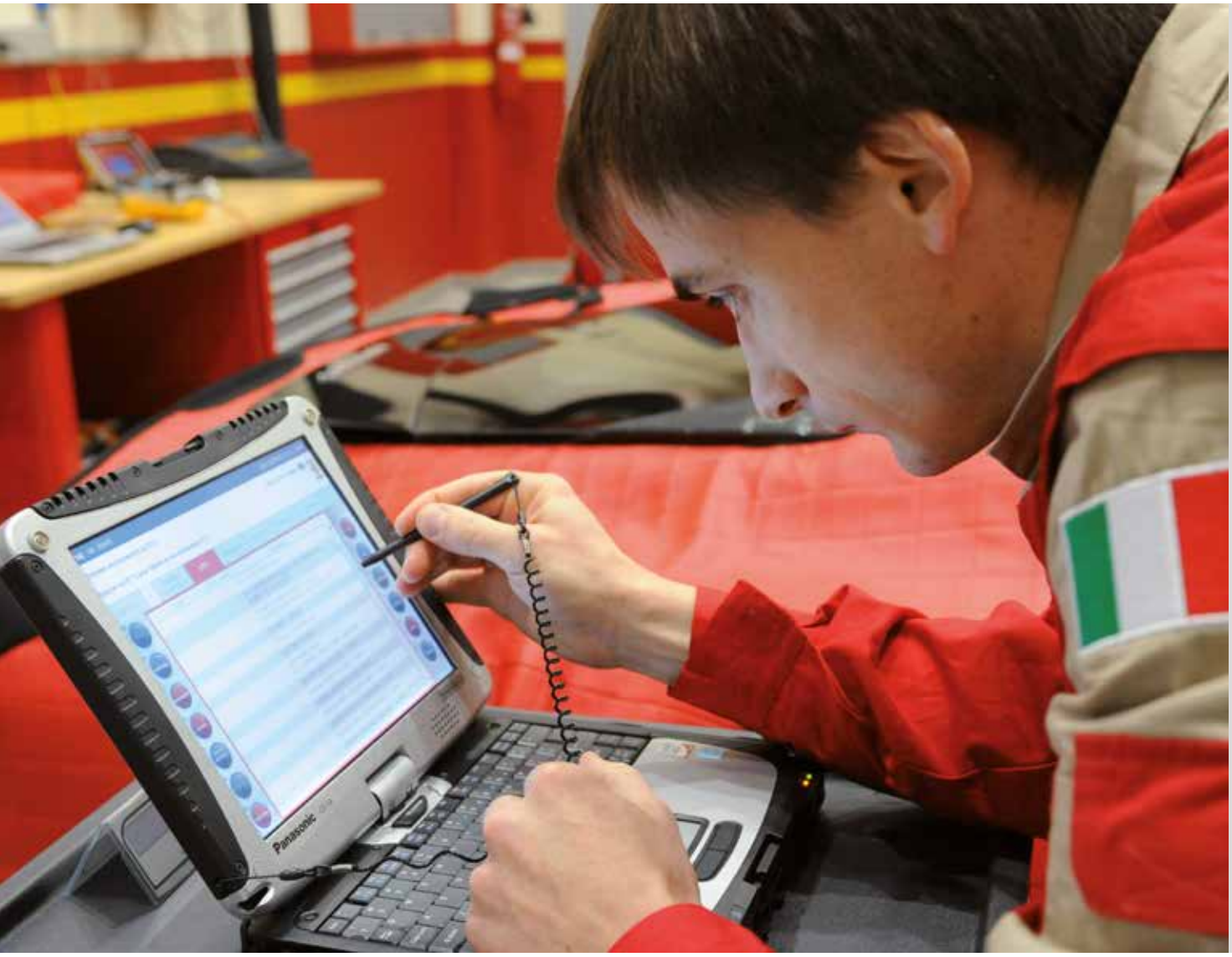


Opt Daytona

- Carbonio Lucido
- Nero Elkann Opaco PPG 237541
- Pelle a scelta



7 years maintenance



812superfast

7 YEARS MAINTENANCE

Ferrari's unparalleled quality standards and increasing focus on client service underpin the extended seven-year maintenance programme offered with the 812 Superfast. Available across the entire Ferrari range, the programme covers all regular maintenance for the first seven years of the car's life.

This scheduled maintenance is an exclusive service that allows clients the certainty that their car is being kept at peak performance and safety over the years. This very special service is also available to owners buying pre-owned Ferraris.

Regular maintenance (at intervals of either 20,000 km or once a year with no mileage restrictions), original spares and meticulous checks by staff trained directly at the Ferrari Training Centre in Maranello using the most modern diagnostic tools are just some of the advantages of the Genuine Maintenance Programme.

The service is available on all markets worldwide and from all Dealerships on the Official Dealership Network. The Genuine Maintenance programme further extends the range of after-sales services offered by Ferrari to satisfy clients wishing to preserve the performance and excellence that are the signatures of all cars built at the factory in Maranello which has always been synonymous with leading-edge technology and sportiness.

Technical specifications

812superfast

TECHNICAL SPECIFICATIONS

Dimension	
Length	4,657 mm
Width	1,971 mm
Height	1,276 mm
Wheelbase	2,720 mm
Front track	1,672 mm
Rear track	1,645 mm
Kerb weight*	1,630 kg
Dry weight	1,525 kg
Weight distribution	47% front - 53% rear
Fuel tank capacity	92 l
Tyres and wheels	
Front	275/35 ZR 20” 10” J
Rear	315/35 ZR 20” 11.5” J
Front (winter)	255/35 ZR 20” 9.5” J
Rear (winter, can be used with Ferrari 7mm chains)	305/35 ZR 20” 11.5” J
Fourth generation Carbon ceramic brakes - CCMIV	
Front	398x223x38 mm
Posteriori	360x233x32 mm
Engine	
Type	V12 - 65°
Total displacement	6,496 cc
Bore and stroke	94x78 mm
Maximum power output**	588kW (800CV) - 8.500 giri/min
Maximum torque	718Nm a 7.000 giri/min
Specific power output	123 CV/l
Max. revs (limiter)	8,900 rpm
Compression ratio	13,5:1
Speed	In excess of 340 km/h
Maximum speed	
0-100 km/h	2.9 sec
0-200 km/h	7.9 sec
Fuel consumption and CO2 emissions	
Fuel consumption***	15 l/100 km
Emissions***	340 gCO2/km
Transmission/gearbox	F1 Dual Clutch transmission, 7 speed

TECHNICAL SPECIFICATIONS

Electronic and mechanical controls	
EPS	Electric Power Steering
PCV 2.0	Virtual Short Wheelbase – Rear Wheel Steering
ESC	Stability control
High performance ABS /EBD	High performance anti-lock braking system /electronic brake distribution
F1 Trac	F1Traction Control
E-diff 3	Third generation electronic differential
SCM-E with twin solenoid	Magnetorheological suspension control with twin solenoid system
SSC 5.0	Side Slip angle Control, 3rd generation

** With optional lightweight content*
*** Engine power is expressed in Kw, as defined under the International System of Units (SI) and in CV (1KW=1.3596216 CV).*
With dynamic ram
**** ECE+EUDC with HELE system*

Ferrari reserves the right to modify technical specifications at any time and without prior warning.