

DIABLO ROSSO: Technical Release

Pirelli presents DIABLO ROSSO: the new generation of DIABLO and a new benchmark in the Supersport segment.

DIABLO ROSSO represents the leap forward to confirm the DIABLO's leading market position.

Passionate bikers who want to push their limits, who consider that their bike is not only powerful but also beautiful, fashionable & at the cutting edge those who love to follow trends and new fashion; these are the DIABLO ROSSO's eager consumers.

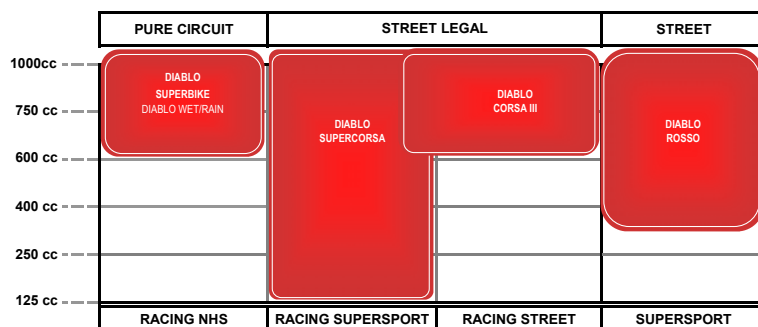


Fig. 1 - DIABLO ROSSO position in DIABLO line

Pirelli's development has been focused on the latest generations of machinery, characterized by quite different power and torque characteristics, across a wide rev range. They require that even more power be transmitted to the ground. New generations of chassis, with greater rigidity, allow greater responsiveness and benefit from an optimal balance of grip and handling, ergo the front delivers faster corner entries and greater feedback allows more security. The latest generation of electronics and rider aids (i.e. slipper clutches) complete the evolutionary benefits. All this improvement passes through the tyre; all the tyre's tasks pass through the contact patch, and an improvement in the contact patch's behaviour can give benefits greater than the sum of every other single component, for example, a particular compound.

Improving the contact patch performance requires a specific and integrated tyre design, as many variables influence it: the dimensions at different lean angles, tread pattern, load distribution and the overall rigidity.

This is the basis of Pirelli's EPT (Enhanced Patch Technology): the entire set of tyre components work in coordination to keep the machine in extraordinary touch with the road surface. EPT technology is coordinated with the Functional Groove Design (FGD) that optimizes the tread design and the Ideal Contour Shaping (ICS), originally developed for Diablo.

EPT technology brings forth an innovative concept for the tread, a new dynamic profile design, supported by the patented zero degree steel belt radial structure, and new materials.



Tread Pattern

The nude shoulder of the Diablo Rosso rear tyre is the visual effect of an exclusive and sophisticated tread design.

The clean area on the rear shoulder and the calibrated cuts in the middle maximize the contact patch, allowing the best performance in terms of grip and stability at maximum lean in the dry, together with excellent traction and stability in a straight line.

In the wet, the higher level of grooves between the crown and the edges disperse residual water effectively, and significant support from innovative compounds, DIABLO ROSSO assures maximum grip throughout the corner, even on very wet surfaces.

The revolutionary tread design of the tyres is a result of the state of the art application of FGD (Functional Groove Design), which brings both excellent dry performance and great control on wet tarmac, with the grooves concentrated exactly where they are needed, yet pushing more rubber onto the road surface wherever cuts are not necessary.

On wet surfaces, the front tread sets about dispersing the water layers, while the rear tyre guarantees grip.

Profile

The front's profile is designed to optimize the contact patch at every possible lean angle and thus give the best balance between fast and linear behaviour in corners, plus an outstanding ease of handling. The rear profile is aimed to support the bike even at very high lean angles providing an optimum shape of contact patch on the straights, as well as at transitory and full lean angles.

The careful coordination of the front and rear profiles allows riders to draw very precise trajectories through the range of lean angles, while maintaining highly predictable behaviour and a feeling of safety in all riding conditions.

This has been done thanks to ICS technology, which merges the work of R&D and computer aided simulation with thousands of hours of testing.

Compound

Each compound of DIABLO ROSSO represent a new pinnacle of tyre design, and are designed to offer unparalleled performance in all forms of usage.

The rear compound has been engineered with a balanced mix of rigidity and hysteresis, both at low and high temperatures, to guarantee fast warm-up, immediate and linear grip response when entering curves, irrespective of the ground conditions. High mechanical resistance chemicals, with an optimal balance of silica and carbon black, provide strong traction, regular wear (even under heavy stress), unbeatable grip on wet surfaces and high mileage.

The front is characterized by high hysteresis materials, with a high energy dissipation factor. The result is a fast warm up, more grip, good traction and braking capability. To assure the best wet weather performance, Pirelli engineers used a balanced ratio of Silica and carbon-black and new, high-stability, structure materials, designed to offer strong and stable performance from cold right through to high temperatures, again independently of the external conditions.

Outstanding grip does not mean that mileage has to be penalized. Pirelli engineers have worked on another innovation in this concept: to maximize not only the performance of the single tyre, but of the wear balance of the entire set, across its whole life.

This has been made possible by the tuning of the entire set allowed by the EPT integrated approach, which balances all the components and influences operating on the contact patches. DIABLO ROSSO raises the mileage of rear tyre near to that expected of a front, harmonizing the performance evolution between fronts and rears.

The solutions enhance the overall performance of each set and avoid the unbalance normally inherent when a new tyre is fitted with a part-worn one.

The benefit for the rider is the improvement of total dynamic performance, across the entire life of the tyre.

Tyre Structure

The design of the structure is aimed to maximize - at every lean angle and at every speed - the contact patch; in terms of area, shape and pressure. This combination supports the tread to reach an unbeatable level of grip and stability.

The tyre structure has also been designed in order to get the set synchronized into balanced behaviour, with the two tyres perfectly matched in dynamic use.

The patented Zero Degrees steel belt below the tread keeps the tyres in the most suitable shape at all times and yet provides enough elasticity for a very progressive feedback and behaviour in lean, allied to unbeatable bump absorption. With the support of the compound the *zero degrees steel belt* also guarantees huge braking stability.

Product Benefits

DIABLO ROSSO enhances to the utmost:

- Handling on road
- Stability at high speed
- Versatility
- Grip in all conditions
- Behaviour in the wet

Available Sizes

DIABLO ROSSO	110/70 ZR 17 M/C 54W TL	FRONT
DIABLO ROSSO	120/60 ZR 17 M/C (55W) TL	FRONT
DIABLO ROSSO	120/70 ZR 17 M/C (58W) TL	FRONT
DIABLO ROSSO	150/60 ZR 17 M/C 66W TL	REAR
DIABLO ROSSO	160/60 ZR 17 M/C (69W) TL	REAR
DIABLO ROSSO	170/60 ZR 17 M/C (72W) TL	REAR
DIABLO ROSSO	180/55 ZR 17 M/C (73W) TL	REAR
DIABLO ROSSO	190/50 ZR 17 M/C (73W) TL	REAR
DIABLO ROSSO	190/55 ZR 17 M/C (75W) TL	REAR

THE DIABLO SIDE OF EMOTION