PIRELLI SCORPION TRAIL

Thanks to its winning experience in off-road with the Scorpion products since 1980 and its know-how on road tyres, Pirelli is re-entering the enduro street segment with the new SCORPION TRAIL.

To obtain a breakthrough product, Pirelli has selected this tyre with an intensive series of real condition tests. The main aim is to provide a multi-purpose tyre tested in the toughest conditions: in different temperature ranges from the North Cape of Africa to Dakar, on long distance runs - collecting and working out on road data from a 6,500 mile route, or in the extreme conditions of the African desert with a rally in Tunisia.

Product Identity

The Enduro-Street segment was born during the 1980's when BMW GS's had started to win the most important African rallies, using resistant motorbikes with a 21” enduro tyre on front. A great step ahead comes with Ducati that, following the success of supermotard, at the beginning of 2000 has introduced the new Multistrada: a bike designed to handle the many turns and conditions of mountain passes. Partner to this revolution has been Pirelli providing the first on-road sporty fitment 120/70-17” and 180/55-17” with a uniquely aggressive tread: the Scorpion SYNC.

SCORPION TRAIL is the new generation tyre able to answer the requirements of this progressive segment: handling and comfort, off-road traction, high speed stability, grip in all conditions.

Product Anatomy: the tread design

The tread pattern has been designed with an entirely new concept: SCORPION TRAIL is the first product in the segment covering the entire tyre revolution with just 4 repetitions of the design. These 4 pitches allow a long stretched design. The tread pattern is distinctive and aggressive as direct result of the Pirelli experience in supersport tyres.

The tread design is derived from an innovative and aesthetically pleasing combination of blocks typical of enduro and slick like areas of supersport tyres.

Off-road appeal is the result of cuts on the shoulder, which guarantee traction and control even turning on dirt roads. Good drainage and aquaplaning behavior are ensured by geometry of the grooves, in particular the profile of rill (?) are in variable wide, “water jets”, which can handle also standing water.

Using some of the winning elements of the World Champion Scorpion MX range, where knobs layout have a V shape to give traction and stability while braking, the SCORPION TRAIL adopts a V shaped foot print with the main edge working on lose soil to assure traction in all conditions while the two big blocks placed in the center ensure on-road high performance and stability.

Structure

To guarantee the maximum flexibility the SCORPION TRAIL comes in two different structures:

- X-ply to provide a tyre able to support motorbikes with less power and more off-road attitude
- Radial to support the power of modern Enduro touring bikes
The conventional sizes of the SCORPION TRAIL have a twin-layer or four-ply diagonal carcass. This soft and stable construction is continuously proving its worth with enduro motorcycles, and guarantees excellent driving performance. The SCORPION TRAIL radial sets have a 0° belted radial structure both on rear and on front, related with a lightweight carcass to promote ease of handling and road holding at high speeds. The result is a stable tyre that distributes forces uniformly to the road, optimizing the contact patch in every condition. The front tyre, thanks to the 0° steel belt, does not present any stand up tendency giving to the rider full control and precision incures even under critical situations. The disposition of steel belts all round the profile, thick on the shoulder and thin on the center, called “three zone scheme A-B-A”, provides straight line stability at high speed and maximum precision in curves. Thanks to the controlled distinctive deformation of the foot print area at high load the stability increases during braking. All the main benefit of the X-ply and radial structures are preserved in the mixed fitment: front conventional and rear radial are combined to obtain the maximum performance and are required on many important bikes such as the Honda TransAlp.

**Compound**

Different compounds for different applications, differentiation of front and rear compounds, fillers and reinforcing elements tailored on different structures: this is the winning element to reach the ultimate performance. Different compounds have been tailored on tyre structure according to the typical usage of the bike fitted. Motorcycles fitting radial tyres are really powerful and heavy, especially when fully loaded with passenger and suitcases. In most instances, the full load rests on rear leaving the front unloaded. The front tyre compound is designed to solve this problem assuring more safety feeling and high speed stability. The rear compound is characterised by 70% of Silica to ensure good wet grip and fast warm-up assuring traction on cold and damp road surfaces and in a very wide range of weather conditions.

**Technical data**