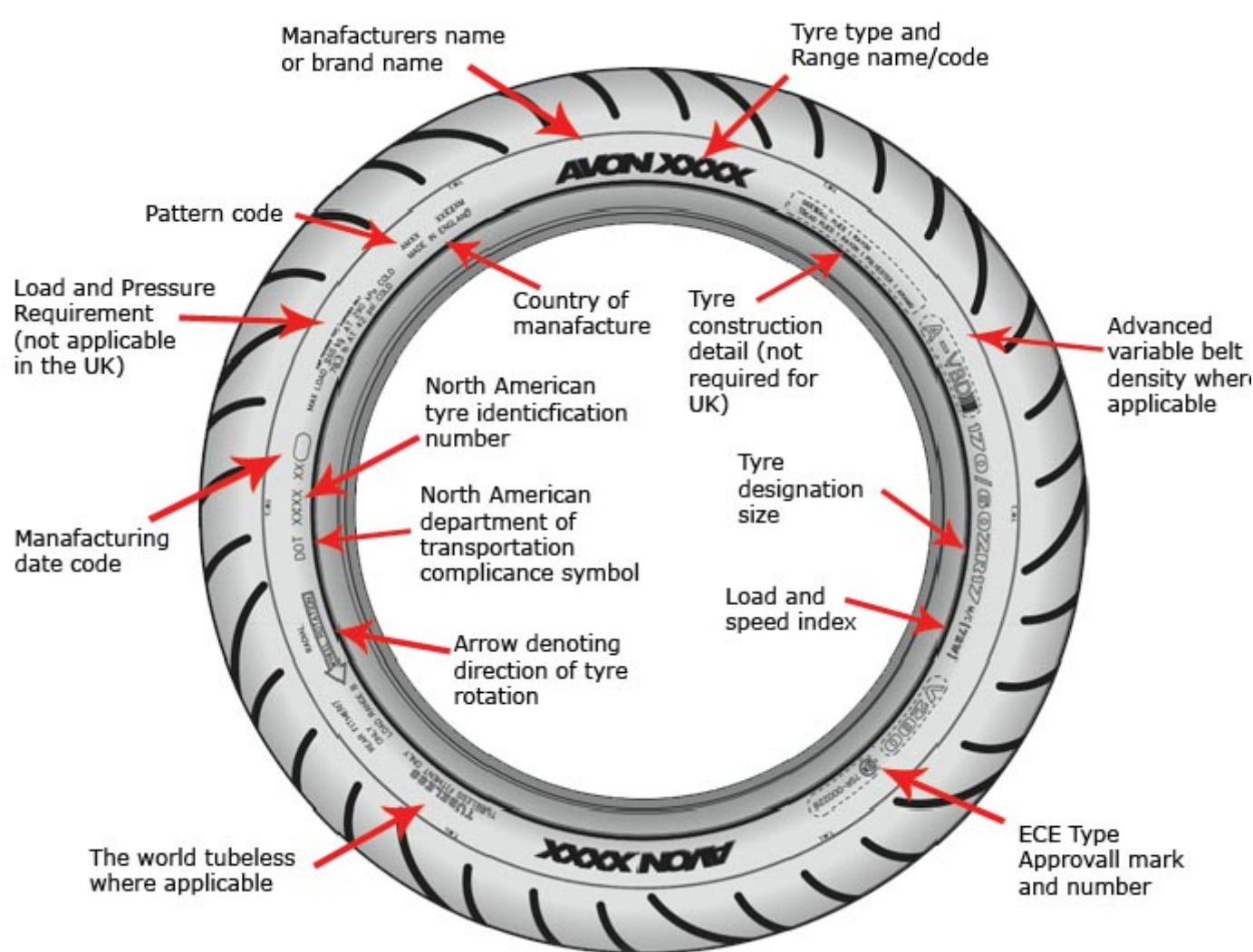




Sidewall

The writing and symbols on the sidewall of your tyre aren't there simply to make it look good, they all tell you something about the specification of the tyre. That includes the maximum speed at which the tyre can safely be used, the loads it can carry, its width, which way round to mount it on the wheel, where it's made and what safety standards it's passed.



Tyre Construction

TYRE CONSTRUCTION & COMPOUNDS

Encompassed within every Avon motorcycle tyre is some of the world’s most advanced tyre technology. It’s what helps give Avon tyres their edge. This technology has been painstakingly developed and tested over many years and means that regardless of what type of bike you have and where you ride, you can have absolute faith in your tyres.





Tyre Technical Symbols



A-VBD

Stands for Advanced-Variable Belt Density technology, specifically for rear tyres. This is a jointless belt of ultra-strong Steel or Aramid strands running around the tyre's circumference. At the centre of the tread the strands are very closely spaced for maximum stability and high wear resistance. The closer you get to the edge of the tread, the further apart the strands are spaced – this broadens the tyre's footprint when you're getting your knee down.



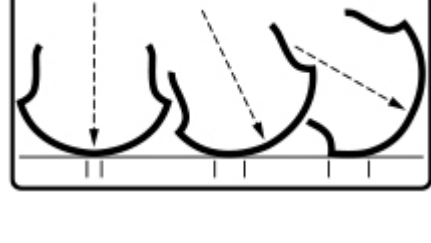
RF (Reactive Footprint)

Reactive Footprint technology marries Avon's unique variable belt density A-VBD carcass with Lifetime Profile Engineering (LPE) to produce a footprint which changes size and shape depending on the bike's lean angle for the full life of the tyre. The result is a contact patch that grows as the bike leans, giving long life when travelling in a straight line and more grip in corners.



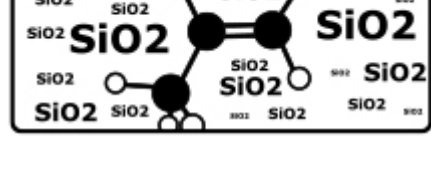
SBC System

'Spiral and Belted Carcass'. A high level of grip puts high loads through the tyre's carcass; the SBC System features ultra-tough belts underneath the Aramid or Steel strands of A-VBD to cope with the extreme stresses.



ATAC Tread Profile

Advanced Tread Arc Combination, or Tri Arc, varies the tread profile across the tyre for the ultimate in handling and stability however far over your bike is. Works in tandem with A-VBD.



SRS-Compound (Super Rich Silica-Compound)

Compounds formulated with large amounts of silica offer enhanced grip in wet and cold conditions. This produces extra grip when the tyre is cold but also reduces excessive heat build up which can affect mileage.



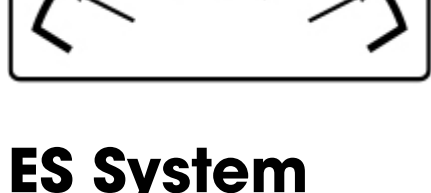
Race-C

Compounds optimised for track performance.



EAF Pattern

Initials that stand for 'Enhanced Aqua Flow'. In other words, tread patterns to efficiently and rapidly clear water away from under your tyres.



ES System

Enhanced Stability System - The carcass, sidewall and tread pattern are designed to work together to reduce localised flexing within the tyre's contact patch. This increases grip and stability while at the same time reduces tyre wear.



IFG (Inverted Front Grooves)

For the front tyre, a system pioneered by Avon in the late eighties and only now being adopted by the competition, resists 'stepped-wear' and cupping to deliver smooth handling throughout the tyre's life. By significantly reducing uneven tread wear, a further advantage of the IFG configuration is improved wet braking and shorter stopping distances.



LPE (Lifetime Profile Engineering)

This works in conjunction with ATAC to produce a tyre profile and footprint which even when worn, gives consistent handling and stability for the full life of the tyre.



WCTA (Wide Custom Tread Arc)

A profile for improved manoeuvrability at all speeds.



Hybrid Belt

Ultra strong steel wires of different tensions bound together to make a tape component to form a unique belt system. This belt produces exceptional high speed stability while the flexibility and natural spring properties of steel translate into superb mechanical grip. This is our most advanced belt system yet.



TE (Tri-compound Extrusion)

Three different rubber compounds are extruded into each tread.

Compound 1 – A durable medium compound in the centre of the tyre for improved mileage.

Compound 2 – A soft compound on the edge of the tyre for maximum grip at high lean angles.

Compound 3 – A very soft low hysteresis compound across the entire base of the tread to improve the bond between the other two compounds and the carcass.



FFG (Force Following Grooves)

Grooves that work in tandem with the forces being transmitted through the tyre at various lean angles for increased wear resistance, optimum water dispersal, reduced tyre noise and improved mileage.

Safety

Important Information

Tyres are the only part of your motorcycle that are in contact with the road. Safety in acceleration, braking, steering and cornering all depend on a relatively small area of road contact. It is therefore of paramount importance that tyres should be maintained in good condition at all times, and that, when the time comes to change them, suitable replacements are professionally fitted.

It is essential that you refer to your machine manufacturer's handbook when buying and fitting replacement tires. Changes in tyre size, type and construction should not be made without first seeking advice from the machine or tire manufacturer, since fitting the wrong tyre may have an adverse effect on handling, safety and wear.

Avon motorcycle tyres are only for use on vehicles for which motorcycle tyres were originally specified by the vehicle manufacturer, any other use may be dangerous.

Motorcycle tyres which have been subject to use on rolling roads must no longer be used for subsequent, normal service. Use of Avon motorcycle tyres on a rolling road (Dyna) will invalidate the tire warranty. All tests on rolling roads must be carried out with test tyres, special tyres reserved for maintenance purposes, or tyres which are worn out or downgraded.

For fitment recommendations please see [Avon Tyres – Motorcycle Data and Fitment Guide](#).

All speeds stated in this brochure are subject to observance of the appropriate national speed limits.

Running In Tires

When new motorcycle tyres are fitted for the road, they should not be subjected to maximum power until a reasonable 'running in' distance has been covered. 100 dry miles (160km) is the recommended minimum (discount any wet miles covered).

Tyres should then be visually examined and their [inflation pressure](#) re-checked before riding.



Common Tyre Issues

Dry Rot/Weather Checking (fine lines on Sidewall)

This is usually seen in the spring after bikes have been stored for the winter. Also very hot, sunny climates are hard on tyres. Ways to avoid dry rot:

- Keep both tyres up off the ground in winter
- Use mild soap & water to clean tyres, not tyre cleaners or preservatives
- Avoid exposure to fertilizer, ozone, extremes in temperature, chain lube spray
- Do not park under electrical wires nor near electric motors e.g. furnaces
- Don't store near gasoline or solvent tanks (hydrocarbon fumes)
- Use bike cover to protect tyres from extreme sun conditions

Groove Cracking

This is usually a result of under or over inflation. Contact your tyre manufacturer for correct pressure if after-market tyres are mounted. Provide weight of rider(s), luggage, and trailer. Also check front forks, suspension.

Avon motorcycle tyres are only for use on vehicles for which motorcycle tyres were originally specified by the vehicle manufacturer, any other use may be dangerous.

Handling problems

These can be caused by the following:

- Incorrect inflation pressures. Remember tyres can lose on the average 1 pound per month or 1 pound for every 10° F drop in temperature in the tyre
- Misalignment of frame
- Luggage not balanced evenly on bike or mounted hanging over rear end of bike
- Weight too far forward or back (riding position)
- Poor suspension components condition or adjustment
- Steering and wheel bearings improperly adjusted
- Bent or out of balance wheels

Out of Round/Out of Balance

If a tyre is laterally or radially O.O.R. by more than 1.2 mm or requires more than 2.5 oz. (71 grams) to balance, this would be considered for warranty if it is within the first .5mm of tread wear. Other things that can cause imbalance:

- Tyre not seated correctly. Ensure bead guide line is equal distance from wheel all around the tyre
- Make sure wheel is not bent or out of balance – good idea to pre-balance wheel assembly and leave those weights on rim. New wheels should not be more than ½ oz (14 grams) out of balance, scratched, or dirty
- Check wheel is clean – no rust, debris, duct tape
- Use of proper mounting lubricant

Wear Patterns/Tire Life

- Cupping can be caused by braking style, bikes equipped with ABS or heavy front ends, not enough air, groove pattern or a combination of the above as well as suspension settings and conditions such as road surface
- Luggage not balanced evenly on bike or mounted hanging over rear end of bike
- Squaring off on rear – flat, straight roads, high speeds, incorrect air psi
- Wear on left side of tyre can be generated by the longer distance traveled on right side driving roads or bikes such as older BMW's which can have purposely offset wheels, wear on right-riding with one hand on the throttle and body leans slightly causing wear on right side
- Factors governing tyre life – load, speed, wheel condition, pressure, riding style, wheelspin, ambient temperature, storage, road surface, incorrect brake adjustment or frame/wheel alignment, excessive tolerances on steering head or swingarm bearings, worn dampers



Tyre care and repair

CARE OF TUBES

Repairs to tubes should ideally be carried out by an expert and should be vulcanized – hot or cold process. It is recommended that a new tube should be fitted with a new tire. Tubes which have given long service become stretched and when fitted with new tires may fail prematurely because of creasing or thinning of the tube rubber.

Tubes with several repairs should be discarded.

DAMAGED TIRES

Damage which exposes the casing is dangerous and contravenes tire legislation. Replace damaged tires immediately.

ALIGNMENT

Ensure wheels are correctly aligned and inspect regularly. Be aware of your tires through frequent visual examination and before any long journey. Worn tires are more susceptible to damage and road holding is reduced in the wet. To maintain full stability on high performance machines it is advisable to change the tires before the legal 1mm (1/32”) remaining pattern depth is reached.

BALANCE

Avon tires are made to fine tolerances but it is essential that the tire/ wheel assemblies should be balanced – particularly if high speed runs are contemplated. The wheels themselves should run true to within 1mm (1/32”) and be free from distortion. Tubeless tires and wheel assemblies can be balanced by using self-adhesive or clip-on weights. Spoked wheels should be balanced by using spoke weights, or by wrapping the outer end of the spoke adjacent to the light spot with lead wire until the wheel, freely rotating on its bearing, shows no tendency from one particular section (a heavy spot) to swing to the bottom-most point. If using lead wire, bind the lower end with the adhesive tape to prevent moving. Fine balance is more important on front than rear wheels.

REPAIRS TO TUBELESS TIRES

The main advantage of a tubeless tire is its ability to withstand penetration by nails etc without a rapid loss of air. This also means that a rider can be unaware of a puncture and if the tire continues to be used for long distances, the area of damage will spread and could become serious. Tires must therefore be inspected regularly for nails etc, and repairs carried out as quickly as possible.

In instances where deflation has occurred, such as a nail penetration, it is essential to remove the tire from the rim for a full external and internal examination before attempting any form of temporary or permanent repair.

Providing there is not other damage to the tread or casing Cooper-Avon recommends that only certain types of repairs should be carried out and these only in the crown area of the tire. Plug repairs to punctures in the shoulder or sidewall area of the tire are not recommended.

It is essential to follow the material manufacturer’s instructions. Repair by buffing the tubeless lining and applying a cold cure, or vulcanized repair, of minimum 25mm (1”) diameter to seal a penetration of not more than 3mm (1/8”) diameter. The external hole should be sealed with rubber sealant to prevent the ingress of moisture which could affect the casing cords.

NB. Straight plug type repairs must not be attempted as there may be insufficient tread rubber and casing material to provide sufficient security for the plug location.

In the event of an emergency ‘get-you-home’ repair, it is permissible to use an inner tube of the correct size and type but the Motorcycle Manufacturers’ Instruction Manual should be consulted. In some instances, an adapter collar may be required if car-type rubber tubeless valves of greater diameter than the standard metal type have been used originally.

If tire foam filler repairs are used as an emergency measure the tire will have to be replaced when you return home. The chemicals in these products decompose the rubber linings of tires.

For repairs other than those already described, a tire fitter, working to the BS159F repair condition standard and expert in permanent repairs, should be consulted. If any major reinforcement is required to repair the damage the tire must not be used, particularly on a high performance machine, because of possible problems with impaired vehicle stability and imbalance at speed.

These recommendations may appear to be over-cautious, but riders who have experienced sudden tire deflation will appreciate how dangerous this can be.

When it comes to quality motorcycle tires, Avon Tyres is the brand you can depend on.