



BluEarth is a global concept which YOKOHAMA will communicate throughout the world. At its centre is the BluEarth Series, which will be rolled out globally with the concept itself as the product name. The same fuel efficient technology is fed back to tyres of all categories. Products developed under this unified concept will display the BluEarth Concept logo all over the world.



 **BluEarth**
Brochure 2012

The Blue Earth at heart

The earth is blue, and we want to keep our earth as blue as possible into the future. This can be achieved by our environmental actions, one stage at a time.

YOKOHAMA is pleased to introduce BluEarth as its latest global concept tyre, designed to deliver environmental, human and socially friendly solutions for you and your car.



Fuel saving. Environmental Earth Friendly Tyres.



What is BluEarth?

The product engineering philosophy for Environmental, Human and Socially Friendly tyres.

Tyres should deliver driving pleasure as well as less environmental impact. YOKOHAMA has launched the BluEarth brand in order to pursue environmental, human and socially friendly performances from its tyres.



What's the theme?

- Environmentally Friendly
- Human Friendly
- Socially Friendly

YOKOHAMA's environmental activities



"Forever Forest" Tree Planting



Pikes Peak EV Challenge



FIA Alternative Energy Cup

BluEarth Technology drive our future.

Advanced Technologies to deliver Environmental, Human and Socially friendly solutions

We have set up our BluEarth technologies to be environmental, Human and Socially friendly. We will continue to develop more BluEarth technologies to include in our future tyres.



BluEarth Strategy on YOKOHAMA Products

The BluEarth concept expands to all our products

BluEarth will expand to all existing YOKOHAMA tyre brand names as well as become an icon for future tyre brands which have the BluEarth concept, from replacement after market tyres to original equipment tyres for new vehicles.



BluEarth Series



BluEarth Concept Tyres

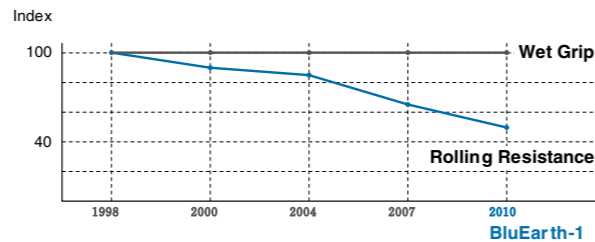


The Flagship Tyre for Fuel-Efficiency



Background

YOKOHAMA has been pursuing environmental performance for more than 10 years, and now our new BluEarth-1 has an amazing fuel saving performance with advanced technologies for the next generation of our products.



Target

- A Flagship tyre which indicates our future tyres.
- An extreme Environmental and Human Friendly tyre for the present market.
- A high-tech tyre using advanced technologies for future tyres.

Benefit

- Environmentally Friendly → Super fuel saving by super low rolling resistance.
- Human Friendly → Safety on wet roads, Anti air loss
- Socially Friendly → Low external noise

Features

- nano BLEND compound
- Orange Oil
- Advanced Inner Liner
- Light Weight Design
- AERO Dynamics
- Environmental Design



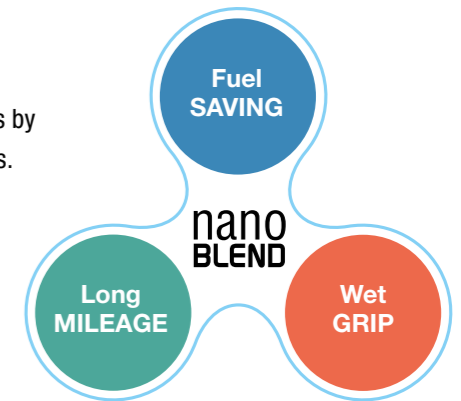
ADVANCED INNER LINER



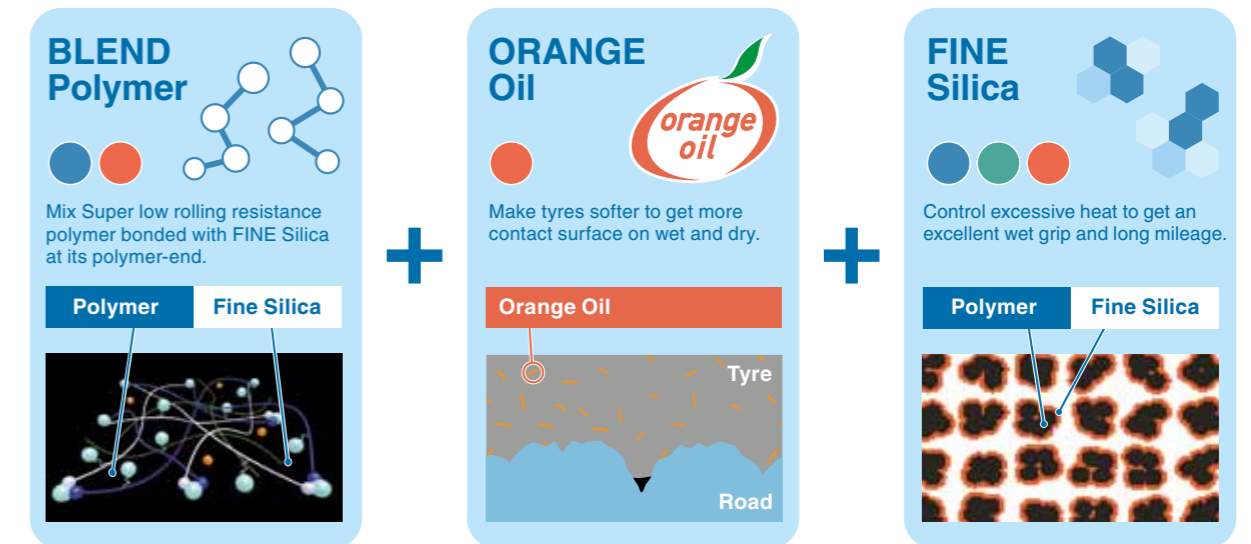
BluEarth-1 Technologies: nano BLEND Compound

nano BLEND Compound

Advanced blending technology for the ultimate balance of performance. YOKOHAMA's new core technology to control chemical reactions of materials by nano composition level. This delivers the ultimate balance of 3 performances.

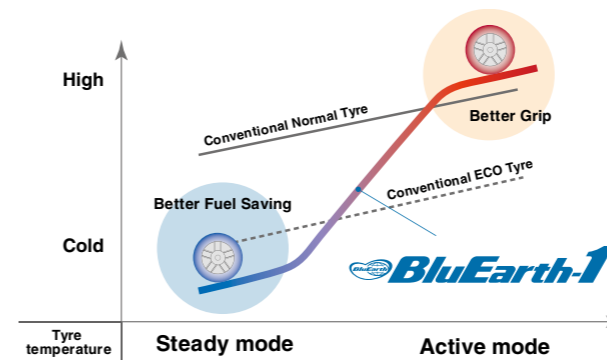


3 main materials of nano BLEND Compound



Dual mode function

In steady mode, the compound works to ensure lower rolling resistance. During active mode, the compound generates heat quickly to deliver better grip.



Orange Oil, a natural material

Extracted from used orange peel. Because Orange Oil and Natural Rubber molecules share similar architecture, they're well mixed and can work effectively.



BluEarth-1 Technologies: Construction and Design

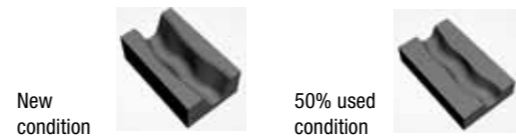
Environmental Design

Asymmetric Tread Design and Fuel Saving Construction.

The Asymmetric Design delivers excellent wet grip due to its inside pattern design as well as handling stability from its outside pattern design. The Fuel Saving Construction with all new materials delivers an ultimate balance of performances, safety and stability.

Wet: Hybrid Wave Grooves.

The centre grooves have a waving shape. The pitch of the waves becomes narrower at the bottom of the groove. The increasing edge effect of the grooves as wear progresses avoids a dropdown of wet performance.



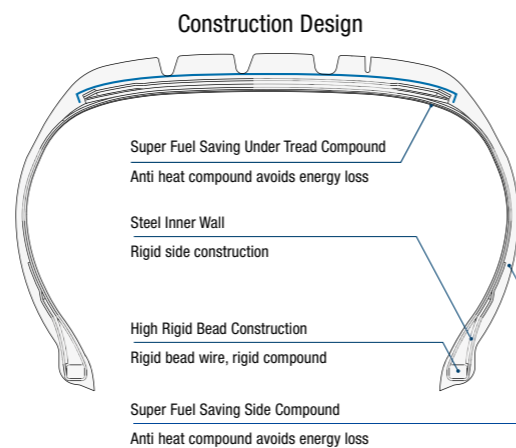
Silent: 5 Pitch Tread Pattern.

5 pitch variation of tread pattern delivers excellent silent pattern noise. One section cancels the noise of the other.

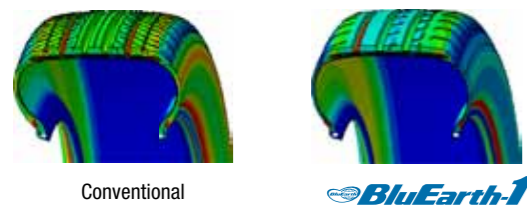


Fuel Saving, Wear Saving.

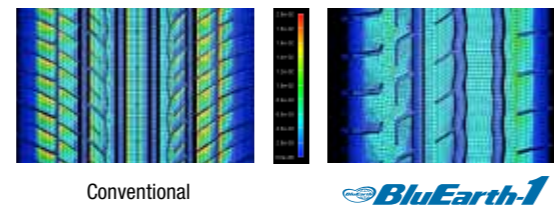
Uneven heat build-up creates a high rolling resistance and rapid wear. BluEarth-1 has an anti-heat compound used for the sidewall and tread in order to reduce environmental impacts.



Heat Simulation



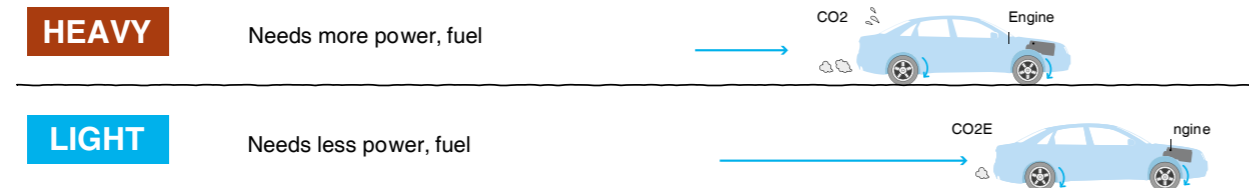
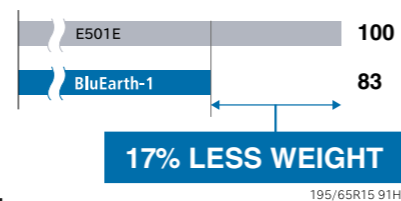
Wear Simulation



Light Weight Design

17% less weight delivers greater fuel saving.

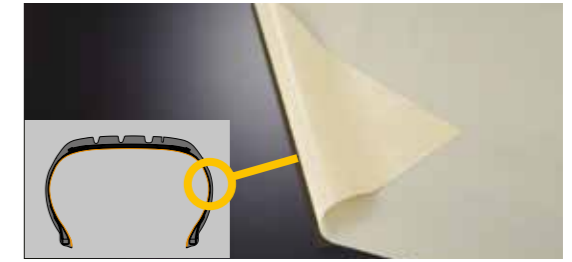
The weight of conventional tyres affects the vehicle's fuel consumption, because a vehicle needs more power to move heavy tyres. BluEarth-1 has amazing light weight construction while keeping sidewall stability for steady driving performance.



Advanced Inner Liner - Anti air loss inner liner

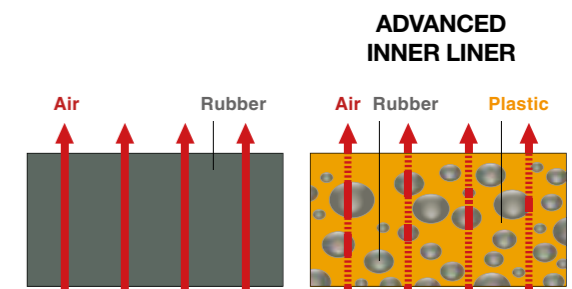
Advanced Inner Liner reduces air leakage by up to 36%

The Advanced Inner Liner reduces air loss by up to 36% compared to conventional tyres, due to its anti penetrative character for air. This supports driver maintenance by keeping suitable air pressure inside and delivering real performance.



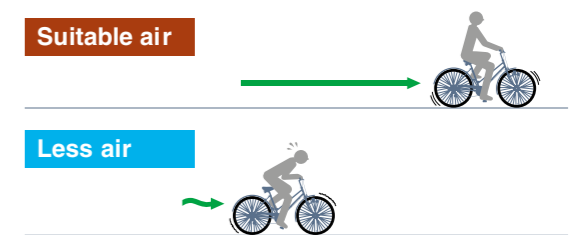
Why the Advanced Inner Liner reduces air loss.

The Advanced Inner Liner has flexible rubber as well as original plastic which has an anti air penetrative character. Air loss of conventional tyres is due to the characteristics of rubber however our Advanced Inner Liner will greatly reduce air loss.



Air pressure affects fuel consumption

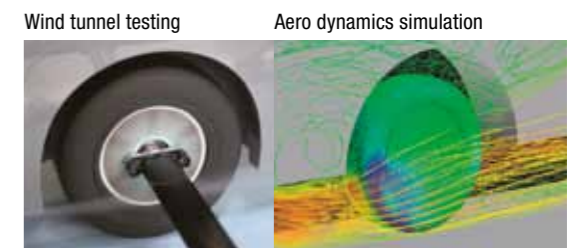
Bicycle tyres lose their air by time passing, and a bicycle without suitable air pressure needs more power to drive because of high rolling resistance. Vehicle tyres without suitable air pressure likewise need more power to drive.



AERO Dynamics Design

A new development theme for tyres

Air resistance is one of the factors causing high fuel consumption, and it becomes more important on high speed tyres. BluEarth-1 has been developed by using original aero dynamics simulation system and wind tunnel testing.



Dimple design delivers low air resistance

Many dimples on its sidewall and shoulders avoid a turbulence caused at the rear of a tyre by controlling air-flow.



Dent design for side brandings

BluEarth-1 has a dent design for its brandings in order to reduce air resistance as much as possible.

Dent designed side brandings



BluEarth-1 Available Sizes

Inch	Series	Size		
17	45	215/45R17	91W	XL
16	55	● 205/55R16	91V	
		● 215/60R16	95H	
15	65	● 185/65R15	88H	
		● 195/65R15	91H	

XL = Extra Load
● = Available soon

The Mass Product for Fuel-Efficiency



NEW 2012



Concept

The standard BluEarth tyre for compact cars, with excellent environmentally friendly performance inspired by the flagship tyre BluEarth-1

Target

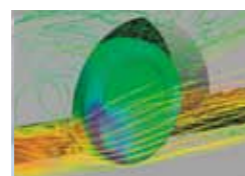
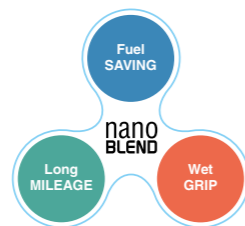
- Compact cars, hybrids
- The drivers who are interested in fuel consumption, fuel savings
- Long mileage, tough, no trouble

Benefit

- Environmentally Friendly → Super fuel saving by super low rolling resistance.
- Human Friendly → Safety on wet roads, Anti air loss
- Socially Friendly → Low external noise

Features

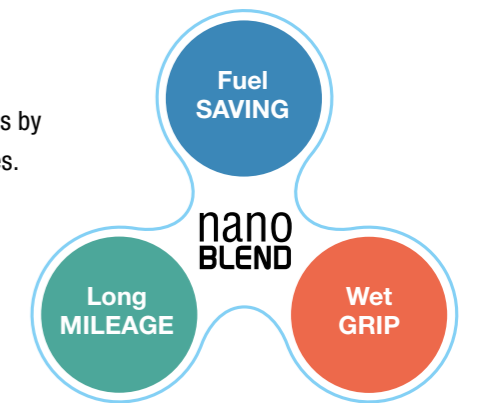
- nano BLEND compound
- Orange Oil
- Anti-Energy-Loss Profile
- Aero Dynamics
- Light Weight Design
- AE01 Pattern Design



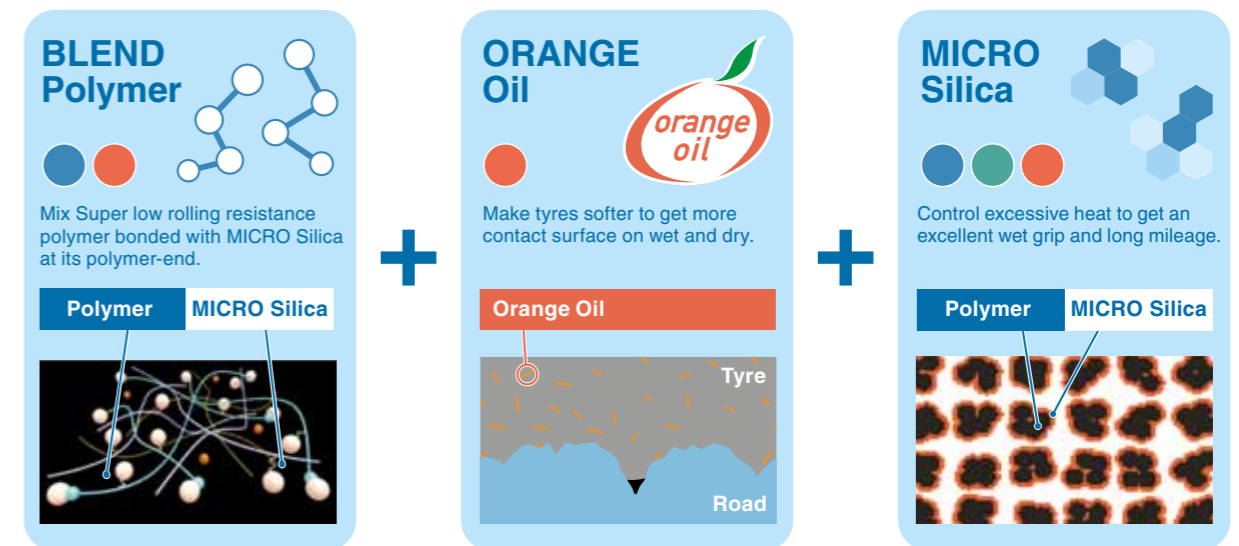
BluEarth AE-01 Technologies: nano BLEND Compound

nano BLEND Compound

Advanced blending technology for the ultimate balance of performance. YOKOHAMA's new core technology to control chemical reactions of materials by nano composition level. This delivers the ultimate balance of 3 performances.

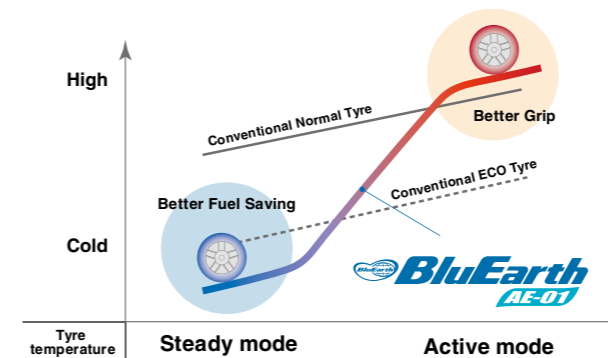


3 main materials of nano BLEND Compound



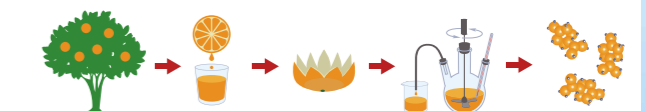
Dual mode function

In steady mode, the compound works to ensure lower rolling resistance. During active mode, the compound generates heat quickly to deliver better grip.



Orange Oil, a natural material

Extracted from used orange peel. Because Orange Oil and Natural Rubber molecules share similar architecture, they're well mixed and can work effectively.



BluEarth AE-01 Technologies: Construction and Design

Environmental Design

Dolphin Grooves.

- Block stability for rolling
- Anti-Hydro
- Small sipe for Anti uneven wear

Wide Straight Grooves.

Anti-Hydro, Water draining on Wet braking

Multi Task Shoulder Grooves.

- Combination of lugs and sipes
- Stability, Evacuation, Anti-uneven wear



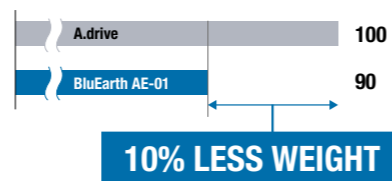
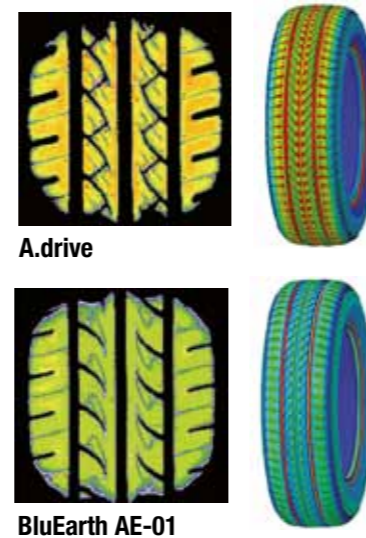
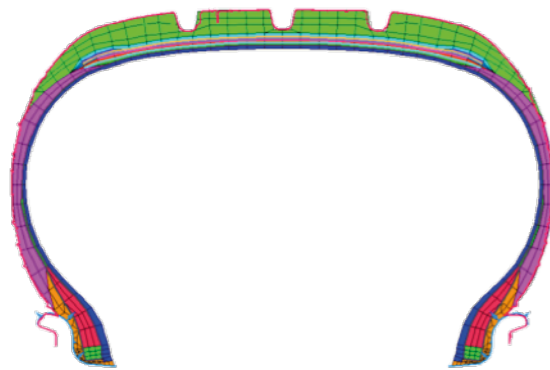
Silent: 5 Pitch Tread Pattern.

- Comfortable silence in the cabin
- Low external noise



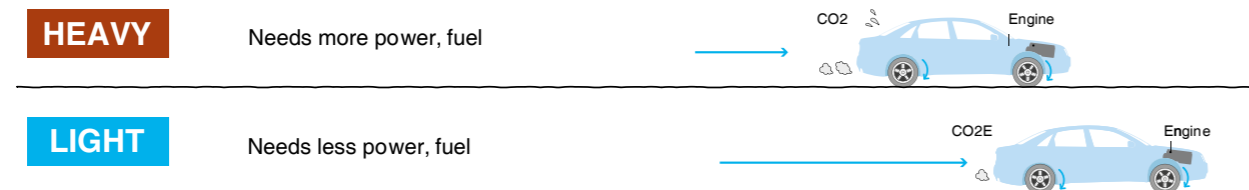
Anti Energy-loss Profile

- Avoid partly deformation
- Deliver light weight



Light Weight Design

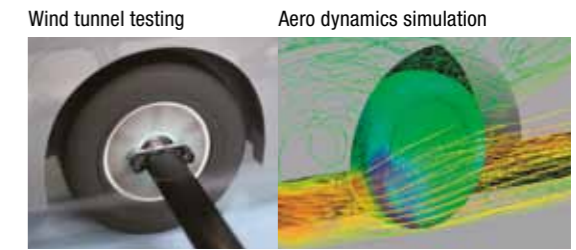
Light weight shall deliver less acceleration resistance.



AERO Dynamics Design

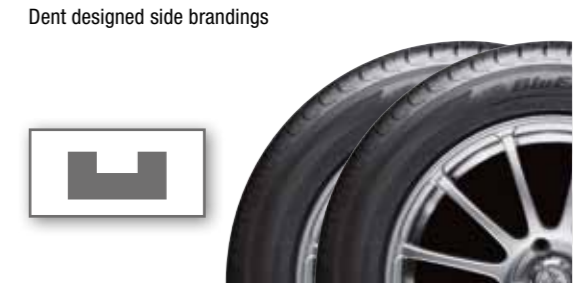
A new development theme for tyres

Air resistance is one of the factors causing high fuel consumption, and it becomes more important on high speed tyres. BluEarth AE-01 has been developed by using original aero dynamics simulation system and wind tunnel testing.



Dent design for side brandings

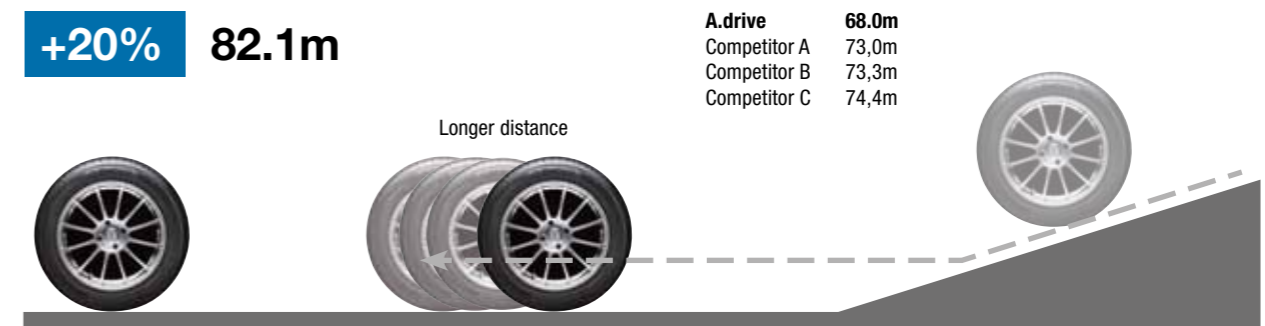
BluEarth AE-01 has a dent design for its brandings in order to reduce air resistance as much as possible.



Low Rolling Resistance

Top level of Fuel Saving in standard tyre market.

Vehicle: VW Golf VI, Air pressure: F/R 200kPa, Slope Dimension L9.00m, H = 1.33m, Weather: Clear, Air Temperature: 30.5 - 31.6 °C, Road Temperature: 48.2 - 50.8 °C, Average distance of 3 results for each test tyre



Available sizes

Fully meets Modern compact cars in the market

40 sizes for 2012

Inch	Series	Size	
16	55	• 185/55R16	83V
		• 205/55R16	91H
15	50	• 195/50R15	82H
		• 185/55R15	82T
	55	• 185/55R15	82H
		• 195/55R15	85H
60	• 175/60R15	81H	
	• 185/60R15	84H	
	• 195/60R15	88H	
	• 205/60R15	91H	
65	• 175/65R15	84H	
	• 185/65R15	88H	
	• 195/65R15	91H	
	• 205/65R15	94H	
	• 165/60R14	75T	
	• 185/60R14	82T	
14	65	• 155/65R14	75T
		• 165/65R14	79T
70	• 175/70R14	82T	
	• 185/70R14	86T	
	• 165/70R14	85T	
	• 175/70R14	88T	
13	65	• 155/65R13	73T
		• 165/65R13	77T
	70	• 145/70R13	71T
		• 155/70R13	75T
80	• 165/70R13	79T	
	• 175/70R13	83T	

XL = Extra Load • = Available soon