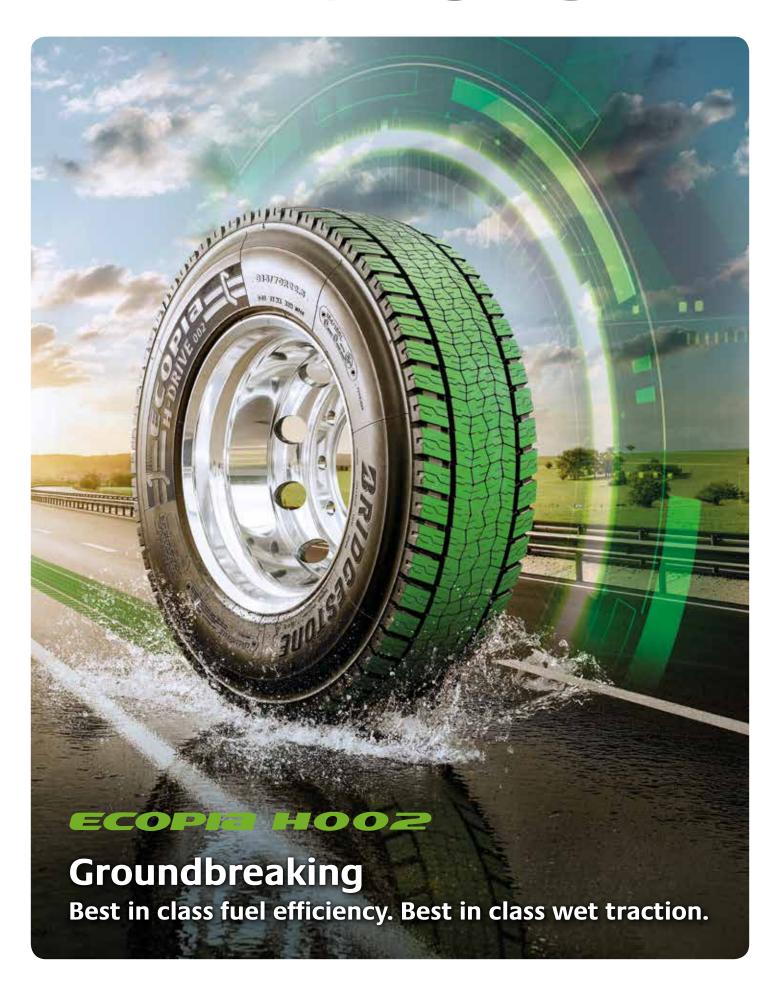
## BRIDGESTONE



#### SOME OF TODAY'S MAJOR TRANSPORT CHALLENGES



Bridgestone is constantly working to cut the total cost of ownership of your long haul fleet operations, whilst helping to reduce CO<sub>2</sub> emissions and promote ecological conservation. Day after day, we are committed to pushing boundaries, pioneering new technologies and investigating new compound materials, so that we're constantly improving our premium tyres.

#### **FUEL COST**

Accounting for 30%, fuel is the biggest operating cost for a long haul truck fleet.1

#### WET GRIP

Poor grip and safety in bad weather are a major concern for fleets and drivers using low rolling resistance tyres.2



Trucks and buses account for up to one quarter of total road transport CO<sub>2</sub> emissions. <sup>3</sup>



Vehicle manufacturers have to calculate and declare CO<sub>2</sub> emissions for each truck they produce, using the VECTO (EU) 2017/2400.

<sup>1:</sup> ACEA Position Paper: Future CO<sub>2</sub> standards for heavy duty vehicles, April 2018.

<sup>2:</sup> Based on findings from internal market research by Bridgestone Europe with long haul operators across Europe, 2016-2018.

<sup>3:</sup> European Environment Agency (2017) "National emissions reported to the UNFCCC and to the EU Greenhouse Gas Monitoring Mechanism".

#### **NEW GROUNDBREAKING ECOPIA**

ECOPIA H002, a new generation of **uncompromising tyres for long haul fleets**, which save fuel, reduce CO<sub>2</sub> emissions and keep you going even in challenging weather conditions.



#### **BEST IN CLASS FUEL EFFICIENCY**

A-A-A COMBINATION FOR STEER, DRIVE, TRAILER 1



#### **BEST IN CLASS WET TRACTION**

OUTPERFORMING ALL ITS COMPETITORS 2

#### TOP RATING FOR WET GRIP

B-B-B COMBINATION FOR STEER, DRIVE, TRAILER 1



#### **WINTER READY**

3PMSF AND M+S FOR STEER, DRIVE, TRAILER





ECOPIA H002 achieved the TÜV SÜD Tyre Performance Mark in recognition of product safety and quality. This achievement applies to each individual tyre: steer, drive and trailer.

<sup>1:</sup> EU label grades in long haul sizes 315/70 R 22.5 and 385/55 R 22.5.

<sup>2:</sup> Based on Wet Hill Climb Test carried out by TÜV SÜD at the request of Bridgestone in June 2018 at ADAC proving ground in Hockenheim (D). Bridgestone ECOPIA H-DRIVE 002 compared to Goodyear Fuelmax D, Continental Ecoplus HD3, Michelin X-Line Energy D2, Pirelli TH:01 in 315/70 R 22.5 size. Report number: 713136052-7\_1.

#### ALREADY PROVEN IN THE MARKET

# Already proven with over 11 fleets, 137 vehicles and over 14,687,640 kilometres<sup>1</sup>



1.1 l/100 km

lower fuel consumption compared with previous generation. <sup>2</sup>



€ 234,000/yr

savings on fuel cost for an average long haul fleet. <sup>3</sup>



ECOPIA H002 tested for 18 months in long haul operations between Poland and Western/Eastern Europe.

"We have to say that we are really satisfied with the new ECOPIA tyres. They actually generated significant fuel savings at the same time as delivering a long life. Continuity during winter conditions was also important. We will now fit our remaining long haul trucks with ECOPIA H002."

Dawid Sachs, Technical Manager SACHS TRANS



ECOPIA H002 tested for 18 months in long haul operations between Portugal and the rest of Europe.

"We were most impressed with the excellent reduction in fuel consumption without compromising any of the other key performance areas. The ECOPIA H002 tyres gave great adherence and traction in diverse atmospheric conditions, great durability and mileage."

José Santos, Technical Director PATINTER SA



546 tonnes/yr

reduced CO<sub>2</sub> emissions for a better carbon footprint. <sup>3</sup>

<sup>1:</sup> Based on internal field evaluation. Status April 2018.

<sup>2:</sup> Based on calculations with the VECTO tool for a 4x2 tractor and trailer combination with ECOPIA H002 315/70 R 22.5 steer and drive, and 385/55 R 22.5 trailer tyres compared with the same unit fitted and under same conditions with previous generation ECOPIA H001 tyres. Please note that actual savings may vary as they depend heavily on other factors.

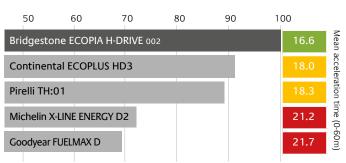
<sup>3:</sup> Financial savings and CO₂ reduction projected for an entire fleet based on the following assumptions: fleet size of 150 tractors and 150 trailers, 130,000 km annual mileage per truck, diesel price € 1.2/l.

#### AHEAD OF THE COMPETITION



#### **BEST CLIMB ON GRADIENT**

Acceleration time (seconds) over a distance of 60m from standstill on a 0° to 7° gradient:



Wet hill climb, relative performance (ranked), Bridgestone ECOPIA H-DRIVE 002 = 100%

#### **BEST STOP & GO ON GRADIENT**

Acceleration time (seconds) from standstill on a gradient of 7° up to 15 metres:

	Repetitions					
	1	2	3	4	5	
Bridgestone ECOPIA H-DRIVE 002	6.8	6.9	7.2	7.1	7.2	
Continental ECOPLUS HD3	7.3	7.3	7.3	7.7	7.2	
Pirelli TH:01	8.6	Х	Х	Х	х	
Michelin X-LINE ENERGY D2	8.6	Х	Х	Х	х	
Goodyear FUELMAX D	9.2	х	х	х	х	

X: failed to climb up

<sup>1:</sup> Test carried out by TÜV SÜD at the request of Bridgestone in June 2018 at ADAC proving ground in Hockenheim (D). Bridgestone ECOPIA H-DRIVE 002 compared to Goodyear Fuelmax D, Continental Ecoplus HD3, Michelin X-Line Energy D2, Pirelli TH:01 in 315/70 R 22.5 size. Report number: 713136052-7\_1.

#### **SUPPORTING TECHNOLOGIES**

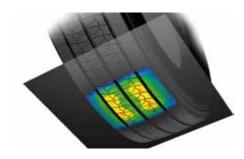
#### SMART PATTERN CONCEPT

"INNOVATIVE PATTERN DESIGN IMPROVES ROLLING RESISTANCE AND WET GRIP" 1



## LOW PATTERN DEFORMATION

Optimised compression stiffness minimises deformation and energy losses.



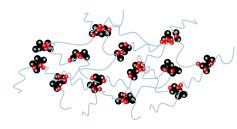
HIGH EFFECTIVE CONTACT AREA

Higher effective contact area with optimised water drainage for better wet grip.

2

#### **HI-TECH COMPOUNDS**

"LATEST COMPOUND AND MIXING TECHNOLOGIES FOR STRIKING THE RIGHT BALANCE BETWEEN ROLLING RESISTANCE, WET GRIP AND WEAR"



## REDUCED ENERGY LOSSES



**EXTRA WET GRIP** 

NanoPro-Tech™ cap compound with nano-selective reactions and new base and bead filler materials to reduce rolling resistance.

High Silica cap compound and new mixing technologies for the ECOPIA H-DRIVE 002 to boost wet grip over entire tyre life.

#### **SUPPORTING TECHNOLOGIES**









- **1 High number of full-depth sipes** improves grip and gives safe operation all year long.
- 2 Stone ejectors in centre grooves increase casing resistance.
- 3 Slim bead and slim buttress reduce tyre weight and rolling resistance.
- 4 Wider shoulder lugs
  enhance traction and improve water drainage
  from the centre.
- **5 Optimum void distribution** improves water drainage and reduces braking distance in wet conditions.
- **6** Wide tread width and optimised tread depth improve compression stiffness and cornering power for lower rolling resistance and better mileage.

#### PRODUCT LINE-UP

Product line-up at November 2018. Visit your local Bridgestone website for latest line-up information.

	SIZE	<b>□</b> 3	000	<b>√)</b>	db	M + S	<b>*</b>
ECOPIA H-STEER 002	315/70 R 22.5	Α	В	<b>)</b> ((	68	•	•
	315/80 R 22.5	В	В	1)))	69	•	•
	385/55 R 22.5	Α	В	1)))	71	•	•
ECOPIA H-DRIVE 002	315/70 R 22.5	Α	В	<b>)</b> ((c	72	•	~
	315/80 R 22.5	Α	В	1)))	70	•	•
ECOPIA H-TRAILER 002	385/55 R 22.5	Α	В	))))	68	•	V
	385/65 R 22.5	Α	В	))))	68	•	V

#### ADDITIONAL BRIDGESTONE SOLUTIONS

## Optimise your tyre management and fleet operations

#### Extend your tyres' life with Bandag retreads

Bandag FUELTECH H-DRIVE 002, FUELTECH H-TRAILER 002 retreads extend the life of your valuable tyre casings and also improve fuel efficiency.1







### Maximise fuel savings and reduce fleet costs with the Bridgestone tyre monitoring system

The annual average savings for a typical tractor-trailer combination running at the correct tyre pressure are up to € 500 in fuel consumption, € 200 in tyre costs and € 400 in breakdown costs. The cost of installing a Bridgestone tyre monitoring system is paid back within one year!



Up to € 1,100/yr saving per tractortrailer combination running at correct tyre pressures. 2

#### tiremotics fleetpulse

- 1: Based on internal rolling resistance test results versus Bandag M749 FUELTECH and Bandag R109 FUELTECH products.
- 2: Based on internal field evaluation and tests conducted with Bridgestone's research and development facilities.

### Contact us for your customised Total Tyre Care solution

We examine your fleet and develop the most appropriate customised total tyre care solution for your needs. Our commitment is to reduce your total tyre budget without any compromise on safety, and more...

Contact us for a first exploratory visit. www.bridgestone.no

