



**NO
SUSTAINABLE
TIRE WITHOUT
A
SUSTAINABLE
FACTORY**



MEDIA DAY

[November 25, 2021]

**JEAN-CHRISTOPHE
GUERIN,**

Industry director and
member of the executive committee



"TOWARDS A 100%-SUSTAINABLE TIRE",
AT EVERY STAGE IN ITS LIFECYCLE



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MICHELIN - SHENYANG



ONE PERFORMANCE INDICATOR, 5 PROGRAMS



WATER



WASTE



SOLVENTS



*ENERGY
CONSUMPTION*

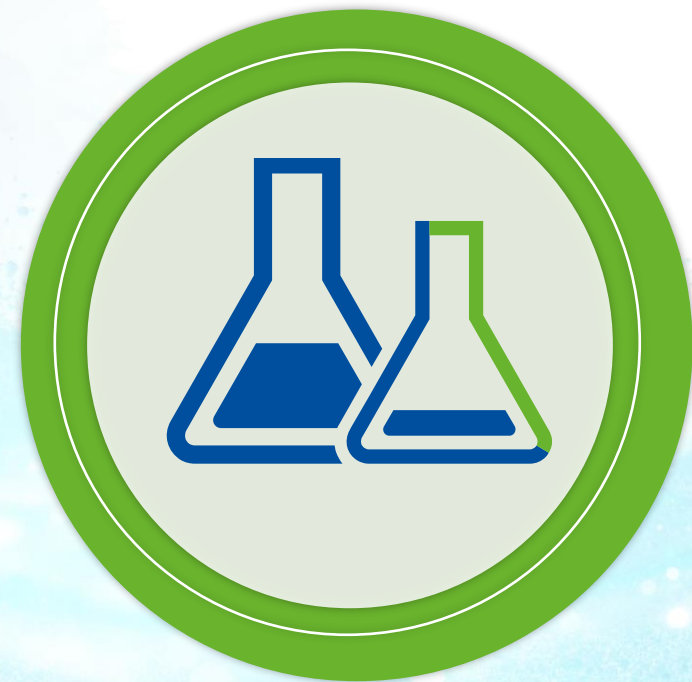


*CO₂
EMISSIONS*





SOLVENTS



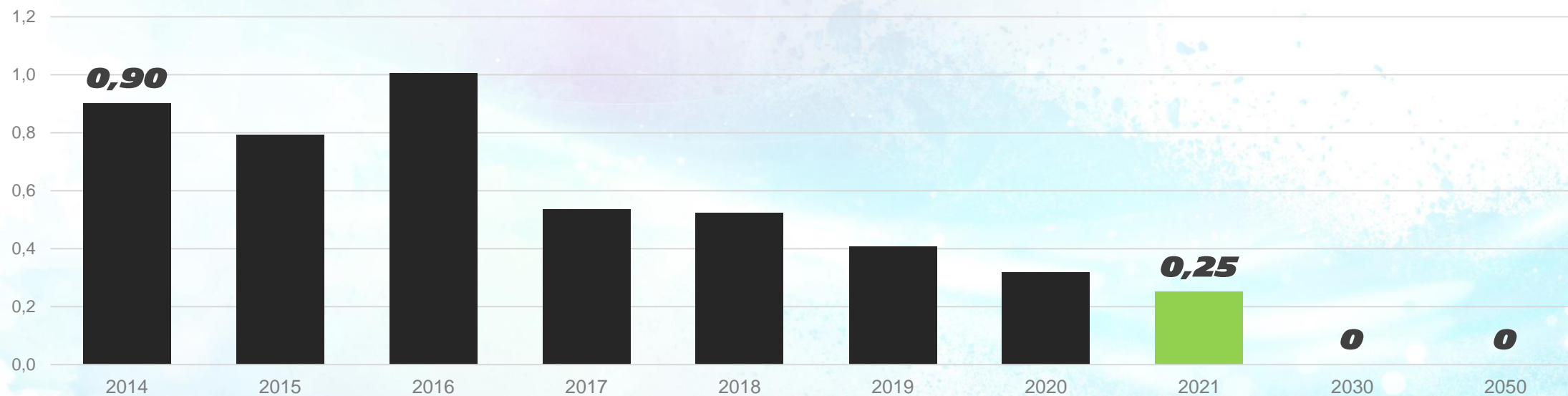


SOLVENTS

SOLVENT CONSUMPTION HAS BEEN REDUCED BY 72% SINCE 2014

OUR AIM: NO LONGER USE SOLVENTS BY 2030

SY2 ORGANIC SOLVENT CONSUMPTION (KG/TON TIRES)





ENERGY CONSUMPTION





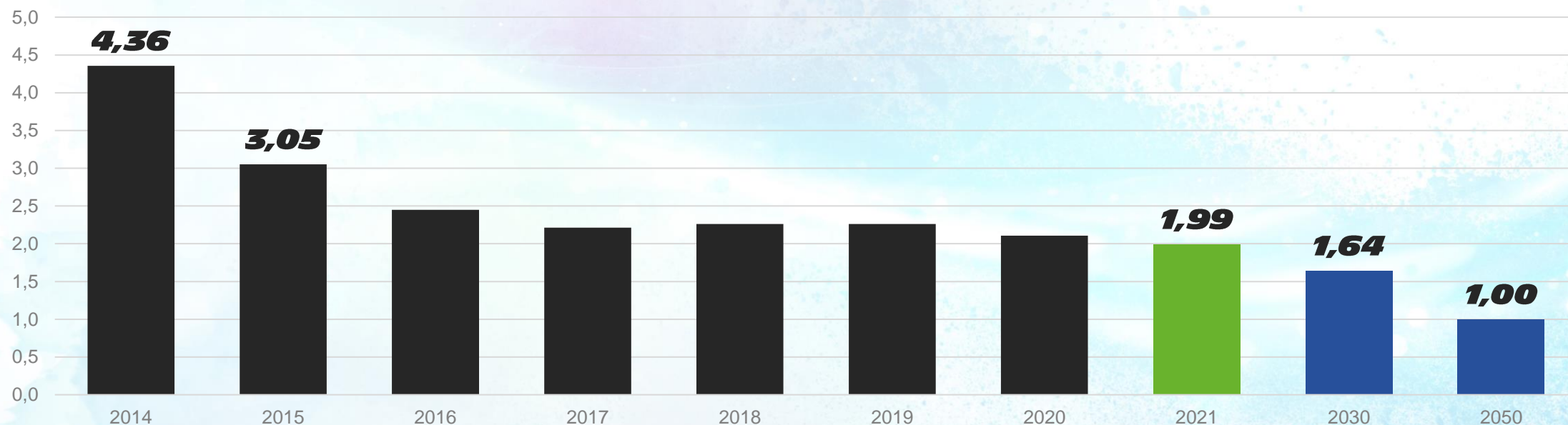
ENERGY EFFICIENCY

**ENERGY EFFICIENCY IMPROVED
BY 35% BETWEEN 2015 AND 2021.**

THE AIM TO REDUCE ENERGY CONSUMPTION:

- **18% BETWEEN 2020 AND 2021**
- **50% BETWEEN 2021 AND 2050**

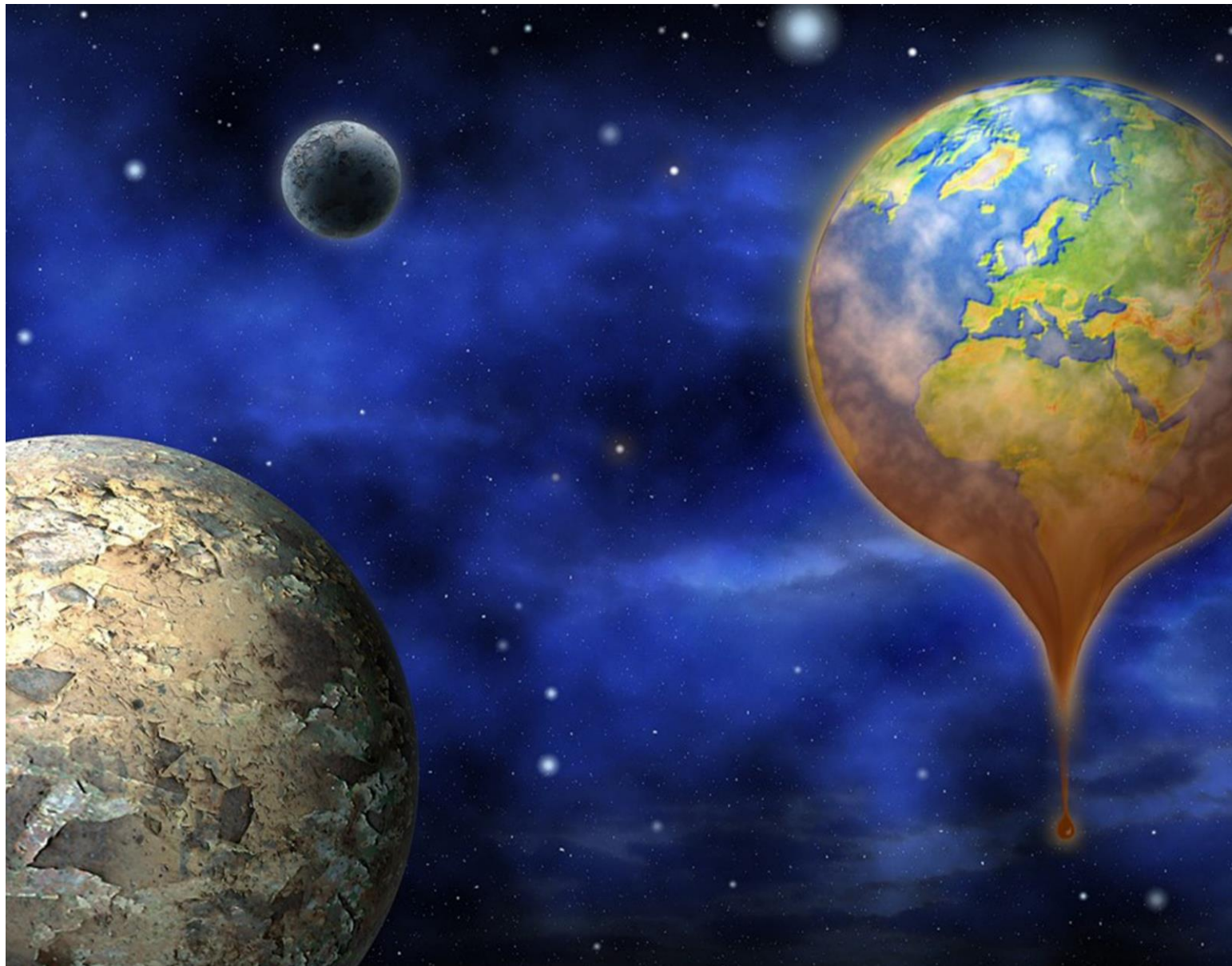
SY2 SPECIFIC ENERGY CONSUMPTION (MWH/TON FP)





MONITORING ENERGY CONSUMPTION AS CLOSELY AS POSSIBLE



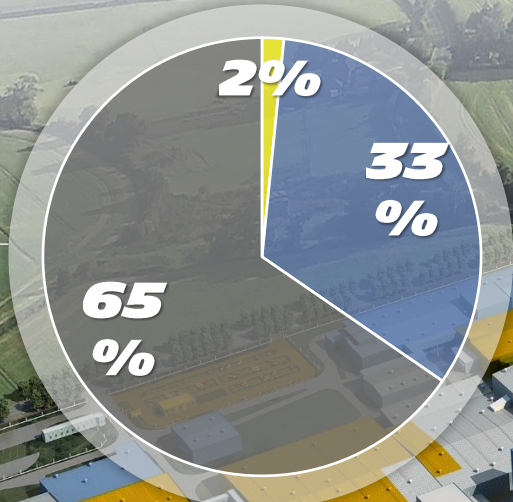


CO₂ EMISSIONS





ENERGY MIX AT SY2 - 2021



**PHASE2: 12 MW,
AREA: 146,000 M²**

**PHASE1: 6 MW, AREA:
60,300 M²**

**SOLAR POWER WILL REPRESENT
12% OF THE FACTORY'S OVERALL
ELECTRICITY CONSUMPTION IN
2022**

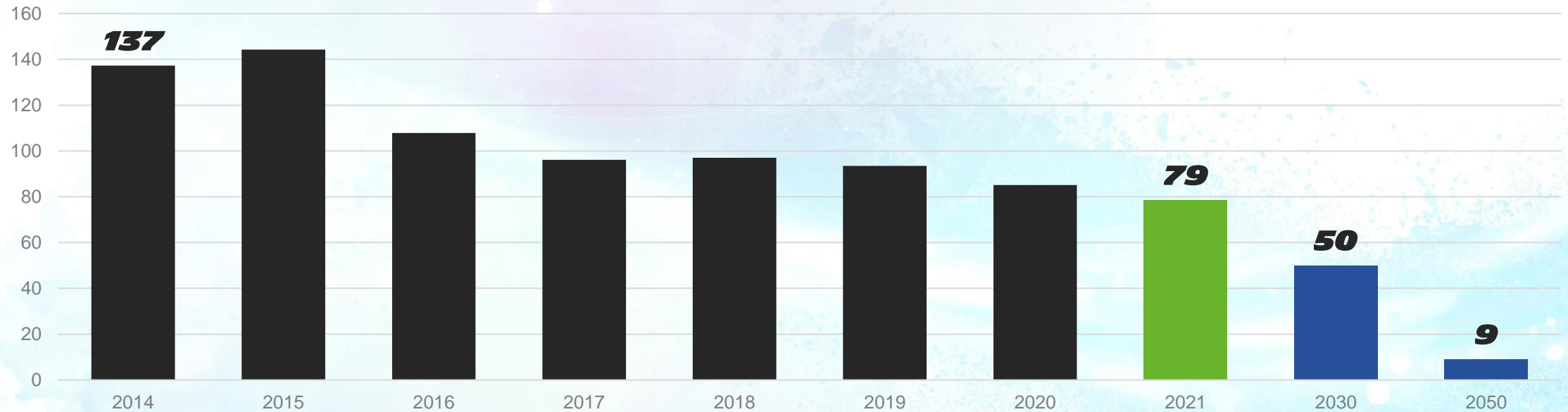


OVERALL ENVIRONMENTAL IMPACT REDUCED BY 42% BETWEEN 2014 AND 2021.

A NEW REDUCTION GOAL OF 36% BY 2030



I-MEP



MICHELIN'S COMMITMENT TO REDUCE WEAR PARTICLES



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MICHELIN'S COMMITMENT TO REDUCE WEAR PARTICLES

TEST & TECHNIK

SO VIEL GUMMI VERLIERT EIN REIFEN

1,7 KG Michelin

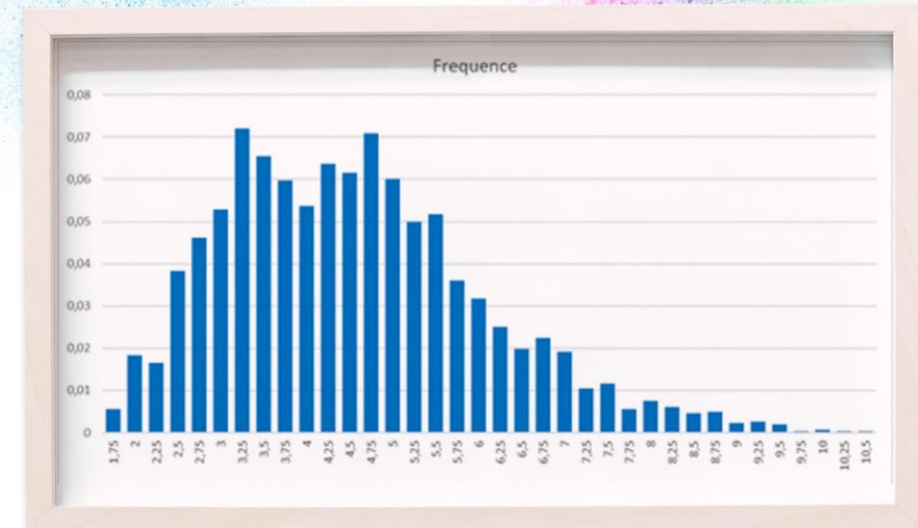
Hersteller	Michelin	Goodyear	Continental	Pirelli	Maxxis	Yokohama	Sumitomo	Wallersteiner	Avon
Gewichtverlust per 1000 km in Gramm pro Reifen	210 Gramm	245 Gramm	258 Gramm	272 Gramm	288 Gramm	280 Gramm	284 Gramm	315 Gramm	
Gewichtverlust Jahresfahrleistung 20.000 km/Fahrzeug	1,69 Kilogramm	1,96 Kilogramm	2,06 Kilogramm	2,18 Kilogramm	2,30 Kilogramm	2,32 Kilogramm	2,35 Kilogramm	2,52 Kilogramm	

Multipliziert man die Jahresfahrleistung von vier Reifen, ergibt sich im günstigsten Fall ein anfallender Reifenabrieb von knapp 1,7 Kilogramm. Gummi- und Kunststoffpartikel, die in der Luft

Hersteller	Goodyear	Continental	Pirelli	Maxxis	Yokohama	Sumitomo	Wallersteiner	Avon
Gewichtverlust pro 1000 km in Gramm	32,3	32,5	33,6	34,7	35,8	38,8	39,2	44,6
Gewichtverlust pro 1000 km in Kilogramm	258	2,60	2,69	2,8	2,86	3,10	3,14	3,57

schweben oder im Straßengraben landen. Die Unterschiede zwischen den Kandidaten sind überraschend groß: der Giti erzeugt auf gleicher Strecke die doppelte Abriebmenge.

3,6 KG Giti



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