### 1. MICHELIN® X-Ice® SNOW is worldwide product?

Yes, new X-Ice SNOW is worldwide tire line, the product will be launch in North America, Europe and Asia.

### 2. What's the sourcing of X-Ice SNOW? Where will these tires be made?

The X-Ice SNOW will be produced in:

North America (Canada)

Europe (France, Germany, Hungary, Poland)

Asia (China)

Eurasia (Russia)

Michelin strategy is to maximize local sourcing. Approximately 85% of the North American sales volume will be produced in Canada to fulfill market demand.

### 3. Is the X-Ice SNOW a passenger car tire or a SUV tire?

The X-Ice SNOW tire line includes coverage for passenger, crossover and sport utility vehicles.

### 4. What's difference between X-Ice SNOW and X-Ice SNOW SUV?

X-Ice SNOW and X-Ice SNOW SUV all belong to new X-Ice SNOW tire line, using the same design, compound and following same MICHELIN quality system to produce; SUV version with additional reinforced casing to adapt for heavy SUV vehicles & high torque levels. The "SUV" suffix has been added for those zones where the "SUV" marking is a key indicator of fitment. In North America, the X-Ice SNOW SUV tire line may cover certain fitments of passenger cars, CUVs and SUVs.

### 5. Which product will be replaced by X-Ice SNOW & X-Ice SNOW SUV?

X-Ice SNOW and X-Ice SNOW SUV replace MICHELIN® X-Ice® Xi3 and MICHELIN® Latitude® X-Ice® Xi2.

#### 6. What are the key product benefits of new X-Ice SNOW?

A WINTER TIRE DESIGNED FOR MAXIMUM MOBILITY AND SAFETY – NOT JUST WHEN IT'S NEW, BUT FOR SEASONS TO COME.

#### WINTER GRIP MADE TO LAST

- Long-lasting SNOW performance with excellent snow braking and improved snow performance<sup>1</sup>.
- Long-lasting ICE performance is attained with a leadership in ice braking<sup>2</sup>. Braking up to 2.7 m shorter than a leading competitor.<sup>3</sup>
- Improved hydroplaning and slush performance.4



#### **EXCELLENCE IN LONGEVITY**

- Lasts up to 1 additional winter more than the average of leading competitors.<sup>5</sup>
- 7. How many sizes will be launched?

  123 sizes will be launched by the end of 2021 in MICHELIN® X-Ice® SNOW tire lines.
- 8. How does the X-Ice SNOW performance compare to its predecessor?

  We have tested the X-Ice Snow in both new and worn state. We have tested our tires at 2 different wear stages, to simulate several winters usage:
  - After 10,000 km of real usage in North Finland (driven) 7
  - At 4 mm remaining tread depth, obtained by buffing and 8,000 km pre-run in real usage conditions. 8

<u>Winter grip</u>: On average, snow grip has been improved by 4% and Ice grip has been improved by 8%.<sup>1</sup>

<u>Longevity</u>: X-Ice SNOW maintains its leadership in longevity compared to average Tier 1 competitors.<sup>5</sup>

<u>Slush</u>: Hydroplaning and slush performance have been improved by 7% compared to its predecessor.<sup>4</sup>

<u>Rolling Resistance</u>: A reduction of 9% in rolling resistance allows for less fuel consumption.<sup>6</sup>
<u>Noise and Comfort</u>: X-Ice Snow is at the parity in noise level and comfort versus its predecessor

9. What's the mileage performance of X-Ice SNOW? Does X-Ice SNOW have mileage warranty?

X-ICE Snow has been designed to keep Michelin leadership in terms of longevity.

Longevity wear tests have been performed in North Finland and have demonstrated Michelin excellence and leadership in terms of longevity, which equates to up to one additional winter season more compared the average of its Tier 1 competitors.<sup>5</sup>

It's not possible to define precisely a mileage performance for a tire. It depends on the vehicle type (weight, power, mass distribution, powertrain, etc.) and on the tire position on the vehicle (front/rear axle). Mileage also depends on usage conditions (speed, acceleration, type of road, temperature, etc.).

In North America, the new X-Ice SNOW will carry a limited treadwear warranty of 60,000 kilometres (40,000 miles).



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10. What is "Performance Made to Last (PMTL)"? Does the new X-Ice SNOW adapt Michelin PMTL concept?

Michelin Group has a purpose to act for a safer and a more sustainable mobility. "Performance Made to Last" illustrates the Michelin Group commitment to design tire which deliver a very high level of performance during all its lifespan (Long Lasting Performance), and that can drive a long way (mileage). That way, Michelin demonstrates great value for end users and contributes to environmental preservation.

This Michelin "Performance Made to Last" concept has driven the design of new X-Ice SNOW tire. It is reflected in the claims used for X-Ice SNOW:

New X-Ice SNOW claims "Because every stop counts, winter after winter"

- 11. Does new X-Ice SNOW have 3 Peak Mountain Snowflake symbol (3PMSF) or M+S marking?

  The X-Ice SNOW tire line meets both the 3PMSF severe snow certification and the "M+S" mud and snow certifications which are both marked on the sidewall.
- 12. What is the minimum temperature below which it is not recommended to use this tire?

  The X-Ice SNOW is designed for severe and cold winter conditions. It can be used in all severe cold regions around the world.
- 13. Do you recommend using MICHELIN® X-Ice® SNOW in other seasons?

MICHELIN® X-Ice® SNOW is winter tire line. Michelin recommends switching to summer or all-season tire line for summer period (for more safety, more fuel savings and more comfort during warm / hot months). Tire manufacturers recommend the use of winter tires when temperatures are consistently below 7°C. You may consult with your local Michelin tire dealer to determine the right tire to ensure your safety and best performance of your car.

- 14. What is the tread depth of new X-Ice SNOW?

  Average tread depth is 8 mm (10/32").
- 15. How's the noise performance of X-Ice SNOW?

Consumers will benefit from optimal safety in severe winter conditions while enjoying a smooth ride with reduced vibrations and road noise on asphalt roads.



MICHELIN® X-Ice® SNOW tires have been designed to provide the same level of noise and comfort as their predecessors, which was recognized by consumers and third-party experts for its quiet performance.

### 16. If punctured, can X-Ice SNOW be repaired?

Yes, new X-Ice SNOW tire line can be repaired and refer your fitment guide.

### 17. What is the recommended tire pressure for X-Ice SNOW?

Different vehicles have different pressure recommendation due to chassis design/weight of car and different performance. Michelin recommends that you check the places noted below to find your tire pressure:

- ✓ Owner's manual
- ✓ Recommendation sticker inside the car, it may place on driver's door or gas filler door or front/central console box
- ✓ Refer fitment guide
- ✓ Check with your vehicle dealership

# 18. Why should I change to a winter tire instead of all-season or all-weather tire?

For some severe winter countries, all-season or all-weather tires with the 3PMSF certification will not provide best performance and highest levels of safety in severe winter conditions and temperatures where ice, snow, and /or slush are present on the roads. Michelin recommends that you consult with your local tire dealer to help you select the right tire to ensure your safety and the best performance of your vehicle.

#### 19. What is the difference between an all-season or all-weather tire versus a winter tire?

X-Ice SNOW is designed for severe winter conditions where tire changeover in winter is recommended to ensure excellent safety and mobility in winter. Winter tires typically have a higher snow traction, superior ice grip and handling and are made of compounds with lower transition temperatures than all-season or all-weather tires.

# 20. What's the recommendation of storage for MICHELIN® X-Ice® SNOW?

Proper storage ensures that your tires' appearance and performance are maintained. Tires should always be stored in a cool, dry, clean, indoor environment. If tires sit outdoors, unused for long periods of time (a month or more), their surfaces will become dry and surface cracks can appear.



#### **Before storing your tires:**

- ✓ Before removing your tires, note their position on your car. This will allow you to properly rotate your tires next time you mount them to ensure that they wear evenly.
- ✓ Inspect each one for damage or uneven wear.
- ✓ Clean your wheels and tires with water and dry them well to limit any corrosion.
- ✓ Remove any stones or debris that have been trapped in the tire grooves.

## **Storing your tires**:

- ✓ Store your tires indoors in a clean, cool and dark location away from direct sunlight, sources of heat and ozone such as hot pipes or electric generators.
- ✓ If you are storing outdoors (recommended for a short time only), raise tires off the ground and use waterproof covering with holes to prevent moisture build-up.
- ✓ Be sure the surfaces on which tires are stored are clean and free from grease, gasoline, solvents, oils or other substances that could deteriorate the rubber.
- ✓ For aesthetic reasons, if your tires have whitewall or raised white lettering, store them with the whitewall or raised white lettering facing each other. Otherwise, black rubber could stain them.
- ✓ If tires are on a vehicle parked for a long period, the weight of the vehicle needs to be taken off the tires by jacking it up or removing the tires. Failure to do this may cause irreversible damage.



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<sup>1</sup> New, at 10,000 km, and when worn to 4 mm and 2 mm tread depth, the MICHELIN® X-Ice® SNOW tire offers shorter snow and ice stopping distances on average than its predecessor, based on third-party snow braking test (between 35 km/h and 5 km/h) and ice braking test (between 30 km/h and 5 km/h), in December 2019 and January 2020: (1) on a Volkswagen® Golf 1.5 TSI comparing the MICHELIN® X-Ice® SNOW tire versus MICHELIN® X-ICE® Xi3 in tire size 205/55R16 94H XL, and (2) on a Volkswagen® Tiguan comparing the MICHELIN® X-Ice® SNOW SUV tire versus MICHELIN® Latitude® X-ICE® Xi2 in tire size 235/55R19 105H XL.

<sup>2</sup> Based on third-party ice braking test on a Volkswagen® Tiguan (between 30 km/h and 5 km/h), in December 2019 and January 2020, comparing: (1) the MICHELIN® X-Ice® SNOW SUV tire versus, BRIDGESTONE® Blizzak DM-V2, CONTINENTAL® Viking Contact 7, NOKIAN® Hakkappeliitta R3 SUV, GOODYEAR® UltraGrip Ice WRT SUV and TOYO® Observe GSI5 in tire size 235/55R19 105H XL and (2) on a Volkswagen® Golf 1.5 TSI comparing the MICHELIN® X-Ice® SNOW tire versus BRIDGESTONE Blizzak WS-90 and Blizzak Ice, CONTINENTAL® Viking Contact 7, NOKIAN® Hakkappeliitta R3, GOODYEAR® UltraGrip Ice 2 and PIRELLI® Ice-Zero FR in tire size 205/55R16 94H XL. All tires mechanically buffed, then 8,000 km performed in real usage in North Finland until worn to 4 mm tread depth before being tested.

<sup>3</sup> Based on third-party ice braking test (between 30 km/h and 5 km/h) in December 2019 and January 2020, in a Volkswagen® Tiguan comparing the MICHELIN® X-Ice® SNOW SUV tire versus NOKIAN® Hakkappeliitta R3 SUV in tire size 235/55R19 105H XL. Tires mechanically buffed, then 8,000 km performed in real usage in North Finland, until worn to 4 mm tread depth before being tested.

<sup>4</sup> Based on: (1) internal hydroplaning longitudinal acceleration test performed in France in March 2019, on a Volkswagen® Golf 7 comparing the MICHELIN® X-ICE® SNOW tire versus MICHELIN® X-ICE® Xi3 in tire size 205/55R16 94H XL and on: (2) internal hydroplaning curve test performed in Japan in February 2019, on an AUDI® A4, comparing the MICHELIN® X-ICE® SNOW tire versus MICHELIN® X-ICE® Xi3 in tire size 205/55R16 94H XL.

<sup>5</sup> Based on third-party longevity tests, in North Finland between October 2019 and January 2020, on a Volkswagen® Golf 1.5 TSI comparing the MICHELIN® X-Ice® SNOW tire versus BRIDGESTONE® Blizzak WS-90, CONTINENTAL® Viking Contact 7, NOKIAN® Hakkappeliitta R3, GOODYEAR® UltraGrip Ice 2, Pirelli® Ice Zero FR in tire size 205/55R16 94H XL. 12,000 kilometres driven per winter is estimated from annual average kilometres driven in Canada per vehicle by Desrosiers Automotive Consultants. A winter season is defined as six months.

<sup>6</sup> Reduction of Fuel Consumption due to 9% reduction of rolling resistance based on internal studies conducted at the Ladoux Technology Center (in Clermont-Ferrand, France) between August 2019 and January 2020, comparing the MICHELIN® X-Ice® SNOW tire versus MICHELIN® X-ICE® Xi3 in tire size 195/65R15 using method ISO 28580 at 80 km/h.

<sup>7</sup> Based on 10,000 km of real usage in North Finland, by a third party.

<sup>8</sup> Based on ASTM-F 1046 standard guide for preparing artificially worn passenger and light truck tires for testing. The MICHELIN® X-Ice® SNOW and MICHELIN® X-Ice® SNOW SUV tires were buffed by Michelin, then 8,000 km performed in real usage in North Finland, by a third party, until worn to 4 mm tread depth and 3 mm tread depth.

