



- New Products 2017
- Range Extension 2018
- **Grabber AT³ & Grabber X³ Status**





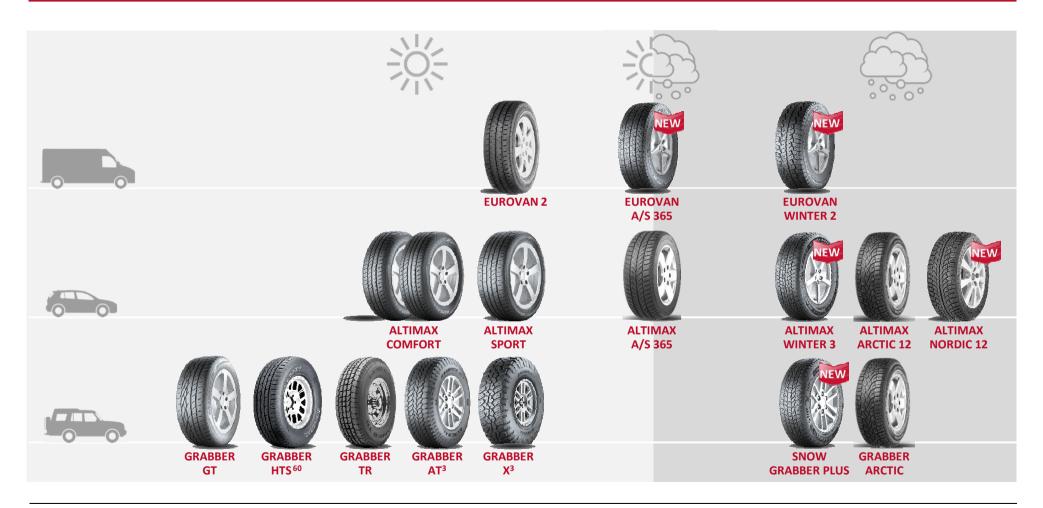
## New Products 2017

**Range Extension 2018** 

Grabber AT<sup>3</sup> & Grabber X<sup>3</sup> Status

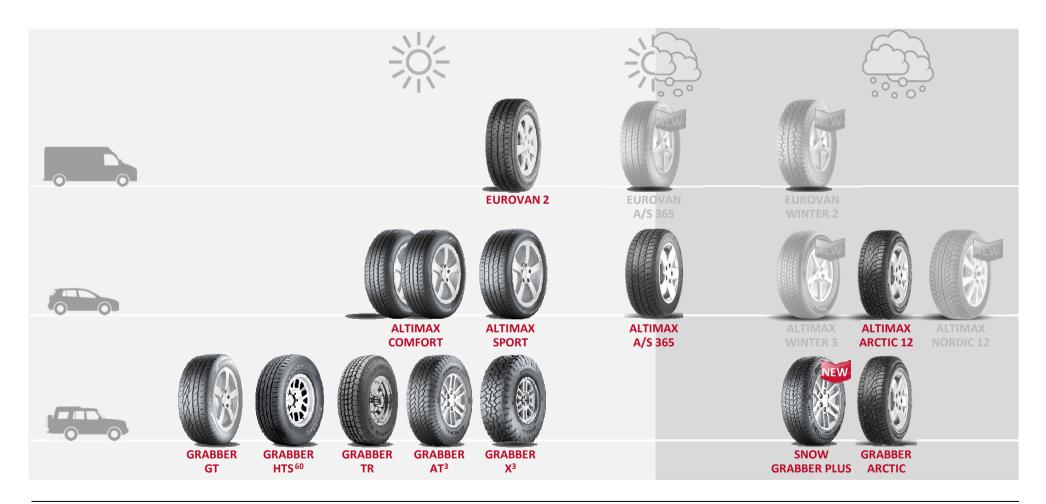
# GENERALTIRE

#### Brand Portfolio: Summer – All-Season – Winter



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#### Brand Portfolio: Summer – All-Season – Winter





#### Brand Portfolio: Summer – All-Season – Winter



#### 2017





100:0 on/off



70:30 on/off

50:50 on/off

20:80 on/off











2013

2015

2002

2016

2016

Grabber GT

Grabber HTS<sup>60</sup>

**Grabber TR** 

Grabber AT<sup>3</sup>

Grabber X<sup>3</sup>













Winter

















## **Overview**

#### **SNOW GRABBER**



- Room for improvement in pattern design
- ▶ Internal benchmark tests (Snow Grabber vs key competitors)
  - ▶ Room for improvement in dry, wet and wear
- Room for improvement in sidewall styling



#### **Overview**



- General Tire's new SUV/4x4 dedicated non-studded Winter tyre.
- Snow Grabber Plus replaces the non-studded Snow Grabber.
- A tyre that offers SUV/4x4 specific toughness and winter performance while maintaining a high level of comfort comparable to passenger car tires.



### What's in a name? SNOW GRABBER PLUS



- SNOW General Tire's proven high performing SUV/4x4 winter tires.
- ▶ GRABBER name that symbolizes toughness, durability, longevity and race winning performance, balanced with excellent overall performance.
- PLUS high mileage thanks to even wear and long tread life.







## TracGen<sup>™</sup> Technology



# TRACTION IN WINTER





## TracGen<sup>TM</sup> Technology





#### Feature:

Open tread shoulder

#### **Effect:**

Promotes self-cleaning ability and helps discharge dirt, slush and snow from the pattern

#### **Benefit:**

Added traction on snowy and unpaved roads



## TracGen<sup>TM</sup> Technology





#### **Feature:**

**Snow Ridges** 

#### **Effect:**

Provide additional gripping edges in deep snow

#### **Benefit:**

Enhanced grip on snow-covered roads especially during cornering



## TracGen<sup>TM</sup> Technology





#### Feature:

Jagged Groove Walls

#### **Effect:**

Provide higher number of biting edges as the tire gets worn

Help compensate the drop in snow performance resulting from reduced tread depth

#### **Benefit:**

Exceptional wintertime traction within the recommended tread depth



## TracGen<sup>TM</sup> Technology





#### **Feature:**

**Jagged Groove Walls** 

#### **Effect:**

Provide wider contact area during braking on snow

#### **Benefit:**

Shorter braking distance on snow



## TracGen<sup>TM</sup> Technology





#### Feature:

**Jagged Groove Walls** 

#### **Effect:**

Help the tread blocks interlock with each other to provide stability during extreme cornering

#### **Benefit:**

Enhanced stability and steering control during extreme cornering on snowy and dry roads



## DuraGen<sup>™</sup> Technology



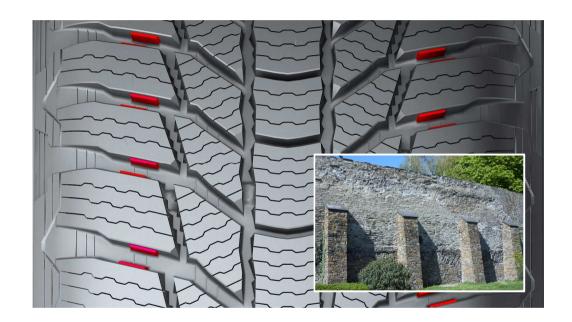
# REINFORCE YOUR CONFIDENCE





## DuraGen<sup>™</sup> Technology





#### Feature:

Tread Block Reinforcement Buttress

#### **Effect:**

Used throughout the ages to strengthen and reinforce structures, this concept is utilized in the Snow Grabber Plus to add strength and stability to tread blocks

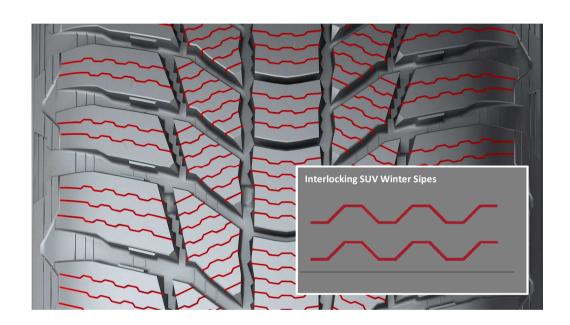
#### **Benefit:**

Added block rigidity to improve stability and reduce the block damage



## DuraGen<sup>™</sup> Technology





#### **Feature:**

**Interlocking SUV Winter Sipes** 

#### **Effect:**

Reduce squirm and block deformation

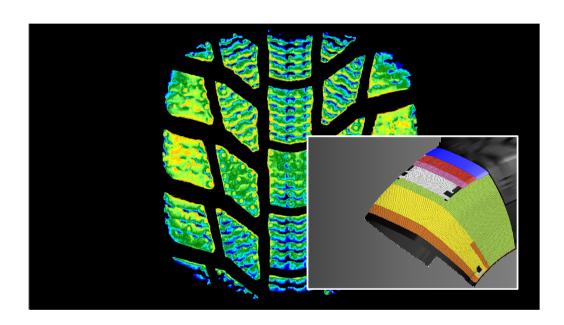
#### **Benefit:**

Improved stability under heavy load conditions and reduced block damage



## DuraGen<sup>™</sup> Technology





#### **Feature:**

Ultra high strength steel belts

#### **Effect:**

Exceptional penetration resistance and uniform footprint pressure

#### **Benefit:**

Confident stability under all approved load conditions

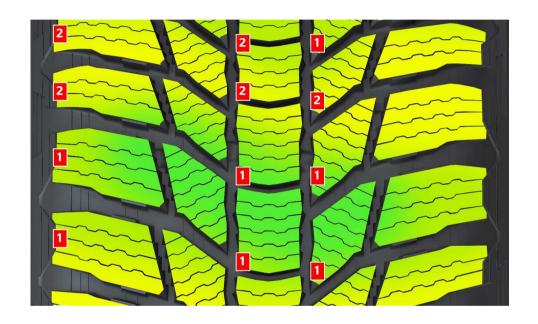


## Mileage



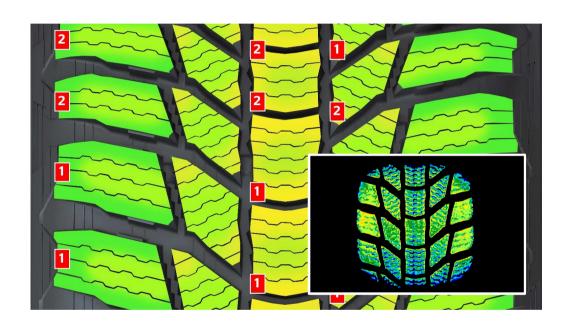
# ENJOY MAXIMUM MILEAGE





## Mileage





#### **Feature:**

Optimized pattern stiffness

#### **Effect:**

Provides even pressure distribution in footprint minimizes wear-causing distortion

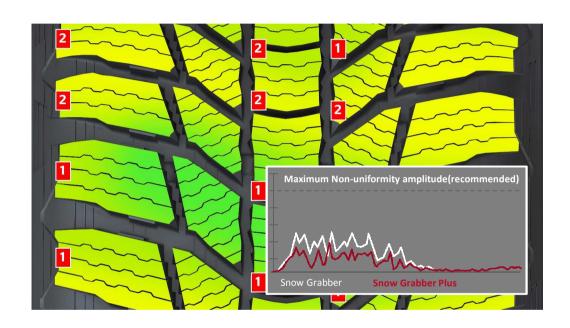
#### **Benefit:**

Extended tread life leading to high mileage



## Mileage





#### Feature:

Computer-optimized symmetrical pattern design

#### **Effect:**

Leads to uniform material distribution and reduced non-uniformity

#### **Benefit:**

High mileage thanks to even wear shape



#### **Sidewall Features**





**OFF-SHOULDER DESIGN** 

Macro blocks on the offshoulder area provide additional biting edges to improve grip and driving control on deep snow







**SNOW GROOVES** 

Two circumferential grooves on the upper sidewall area provide additional void to discharge snow to enhance deep snow traction

#### **Sidewall Features**





**OFF-SHOULDER DESIGN** 

Macro blocks on the offshoulder area provide additional biting edges to improve grip and driving control on deep snow



**SNOW GROOVES** 

Two circumferential grooves on the upper sidewall area provide additional void to discharge snow to enhance deep snow traction



**RIM PROTECTION RIB** 

Rim Protection Rib shields the tire and wheel bead area from damage caused by curbstones and off-road obstacles

## Sidewall Design



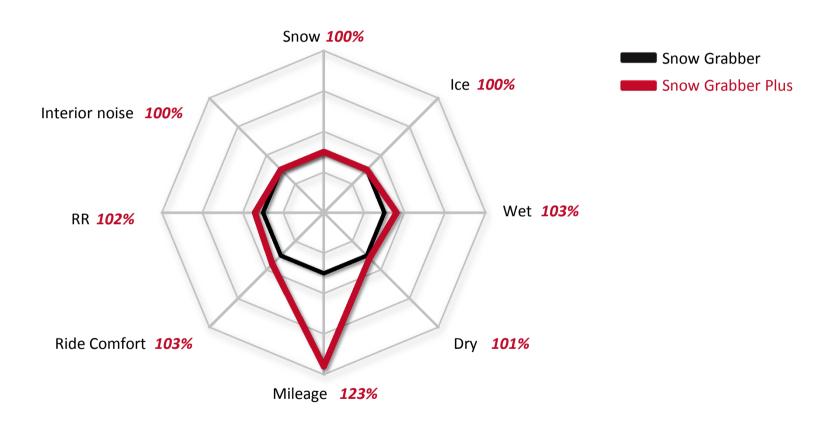


#### **Snow Claw Design**

The tyre's "Snow Claw design" symbolizes the innovative Traction features to take you anywhere, even in the worst wintry conditions.

## Performance Comparison





#### **Market Launch**

## **Product Range**



Rim	Size
15"	205/70R15 96T FR
15"	235/75R15 109T XL FR
16"	215/65R16 98H FR
16"	215/70R16 100H FR
16"	225/70R16 103H FR
16"	235/70R16 106T FR
16"	245/70R16 107T FR
16"	265/70R16 112H FR
16"	225/75R16 104T FR
17"	235/55R17 103V XL FR
17"	215/60R17 96H FR
17"	225/60R17 103H XL FR
17"	235/60R17 106H XL FR
17"	225/65R17 106H XL FR
17"	235/65R17 108H XL FR
18"	235/55R18 104H XL FR
18"	255/55R18 109H XL FR
18"	255/55R18 109V XL FR
18"	235/60R18 107H XL FR
18"	265/60R18 114H XL FR
19"	255/50R19 107V XL FR
19"	235/55R19 105V XL FR
19"	255/55R19 111V XL FR
20"	275/40R20 106V XL FR
20"	275/45R20 110V XL FR

Sizes: 25

▷ Speed Rating: T to V

Width: 205 to 275

> Aspect Ratio: 40 to 75

▶ Rim diameter: 15" to 20"

**AVAILABLE IN THE MARKET** 

▶ Q2/Q3 2017

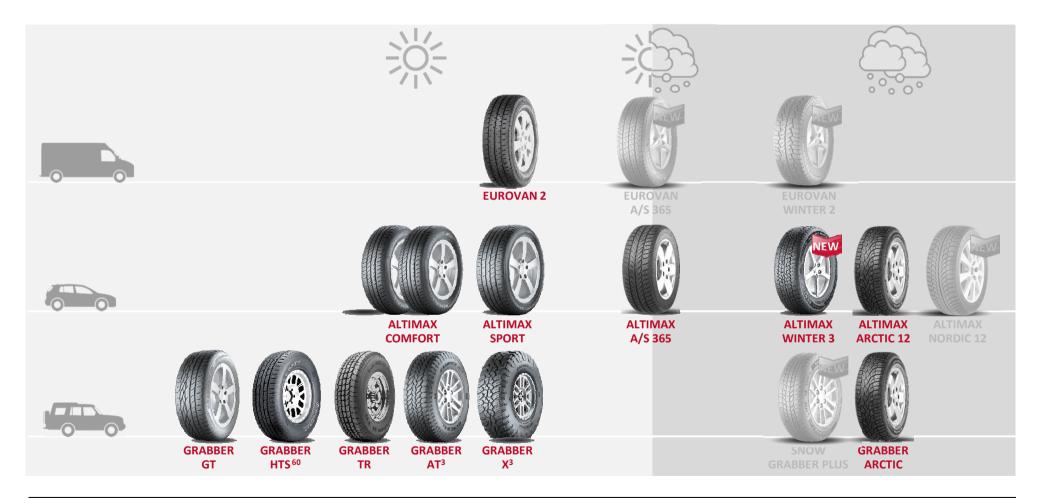


EU TYRE LABEL



# GENERALTIRE

#### Brand Portfolio: Summer – All-Season – Winter





#### **Overview**

#### **Altimax Winter 3**



- General Tire's new non-studded Passenger Winter tyre.
- ▶ Altimax Winter 3 replaces Altimax Winter Plus.
- Powerful grip on snow and ice with improved tread technologies



#### Snow traction



32



#### **Feature**

▶ Improved sipe density

#### **Effect**

▶ Provides the gripping edges to help grip snow and ice

#### **Benefit**

▶ Enhanced winter traction

## Snow handling





#### **Feature**

▶ Multi-angle block edges

#### **Effect**

Numerous gripping edges in all driving directions

#### **Benefit**

Excellent handling on snow covered roads

## Dry handling





#### **Feature**

▶ Wide shoulder blocks

#### **Effect**

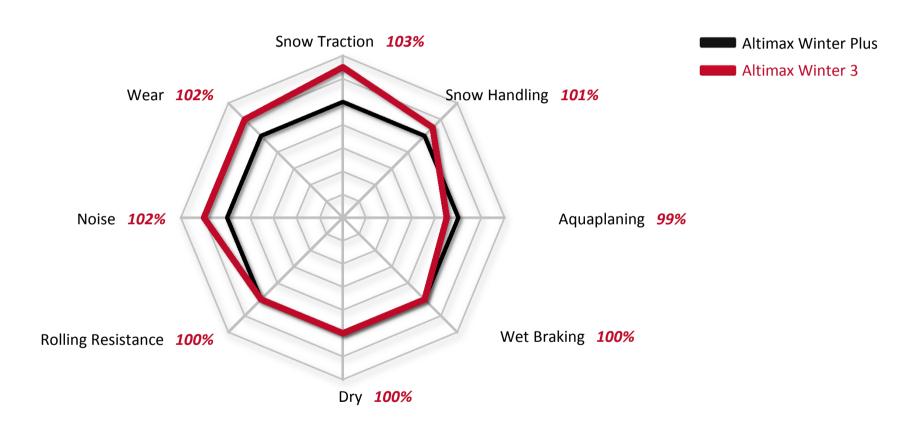
- ▶ Increased block stiffness
- ▶ Better transmission of forces

#### **Benefit**

▶ Improved handling characteristics

## **Performance Comparison**





#### **Market Launch**

## **Product Range**



Series	Size	Series	Size
80	155/80R13 79T	55	185/55R15 82T
70	155/70R13 75T	55	195/55R15 85H*
70	165/70R13 79T	55	195/55R16 87H
70	175/70R13 82T	55	205/55R16 91H
70	165/70R14 81T	55	205/55R16 91T
70	175/70R14 84T	55	205/55R16 94H XL
65	155/65R14 75T*	55	215/55R16 97H XL
65	165/65R14 79T*	55	225/55R16 99H XL
65	175/65R14 82T	55	215/55R17 98V XL*
65	185/65R14 86T	55	225/55R17 101V XL
65	175/65R15 84T	50	195/50R15 82H*
65	185/65R15 88T	50	205/50R17 93V XL FR*
65	195/65R15 91T	50	215/50R17 95V XL FR*
65	195/65R15 95H XL	50	225/50R17 98V XL FR
65	205/65R15 94T	45	225/45R17 94H XL FR
60	185/60R14 82T*	45	225/45R17 94V XL FR*
60	185/60R15 88T XL	45	225/45R18 95V XL FR*
60	195/60R15 88T	45	245/45R18 100V XL FR*
60	205/60R16 92H	40	225/40R18 92V XL FR
60	205/60R16 96H XL	40	245/40R18 97V XL FR*
60	215/60R16 99H XL	4	*NEW!

Sizes: 41

▶ Speed Rating: T to V

▶ Width: 155 to 245

▶ Aspect Ratio: 40 to 80

▶ Rim diameter: 13" to 18"

**AVAILABLE IN THE MARKET** 

▶ Q2 2017

EU TYRE LABEL

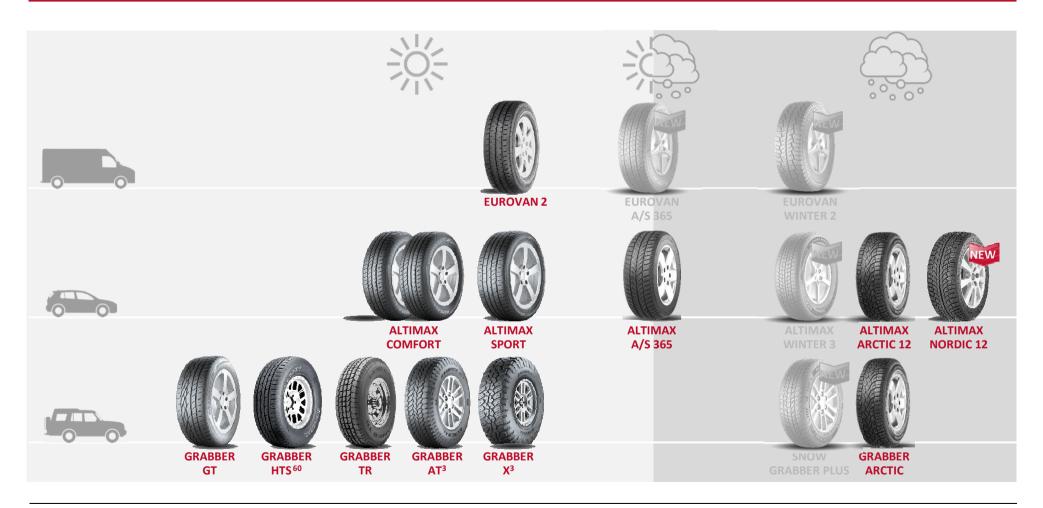




# Marketing

# GENIERALTIRE

## Brand Portfolio: Summer – All-Season – Winter



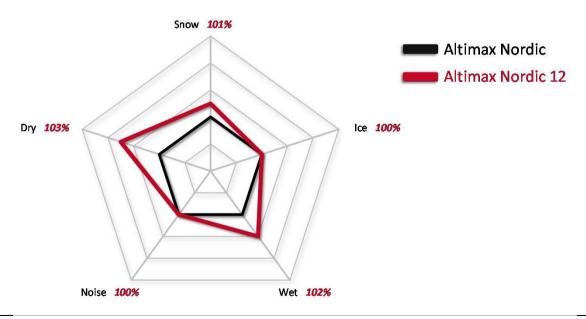


### **Overview**

### Altimax Nordic 12



- Nordic soft compound Passenger winter tyre
- Development focus
  - Directional pattern optimized for traction and lateral grip
  - Up-to-date size range





### **Market Launch**

# **Product Range**



#### **Altimax Nordic 12**

Series 70

195/70R15C 104/102R

Series 65

175/65R14 86T XL

185/65R15 92T XL

195/65R15 95T XL

205/65R16C 107/105T (103T)

Series 60

185/60R15 88T XL

205/60R16 96T XL

215/60R16 99T XL

14 sizes available

Series 55

205/55R16 94T XL

215/55R16 97T XL

215/55R17 98T XL

225/55R17 101T XL

Series 50

225/50R17 98T XL FR

Series 45

225/45R17 94T XL FR

Nominal width

175 – 225 mm

Aspect ratio

45 – 70%

Rim size

14" - 17"

**Speed symbol** 

R - T



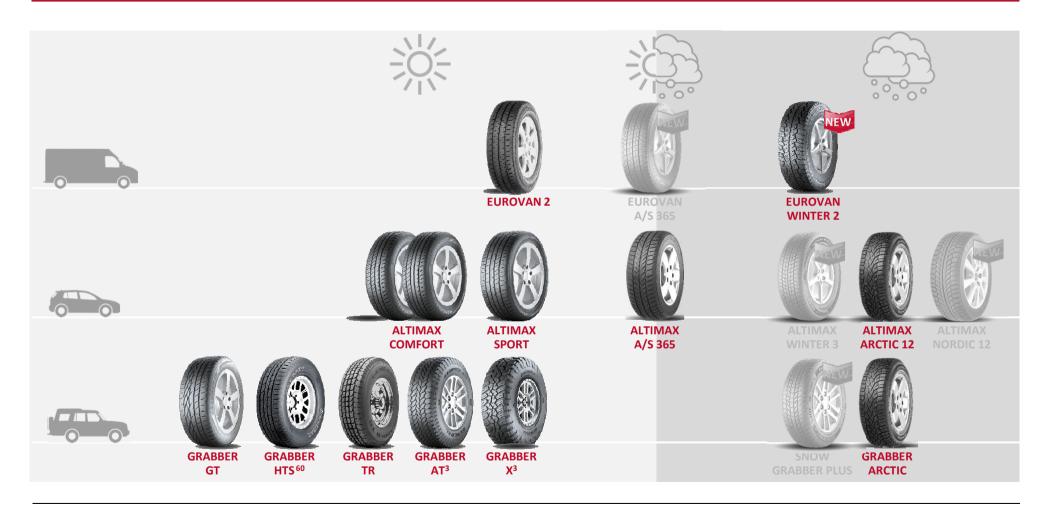
**EU TYRE LABEL** 



# **Marketing**

# GENERALTIRE

## Brand Portfolio: Summer – All-Season – Winter





# **Development Goal**



The new Eurovan Winter 2 is a winter tyre for a strong and cold winter.

 The Eurovan Winter 2 has a stable grip on snow over lifetime, due to a new special winter compound.

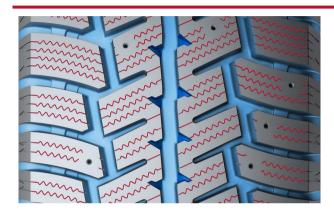
 ➤ To achieve an even better traction and braking performance on snowy and icy roads, it is possible to stud the Eurovan Winter 2, wherever it is legal.

- ► Larger volume block contact area leads to higher mileage.
- Optimized pattern layout around stud position improves stiffness distribution of the pattern which leads to an improved appearance after wear.



#### **Eurovan Winter 2**



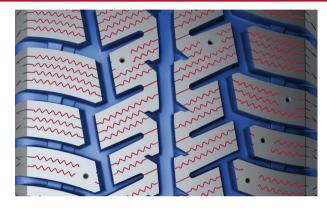


#### **Customer Benefit**

- Outstanding snow traction and snow handling
- ▶ Improved braking on snow

#### **Feature**

- Large number of **sipes** and multiple edges create "ice-scraper-effect"
- Snow pockets in center groove and optimized snow filling capacity in the footprint lead to increased snow to snow friction

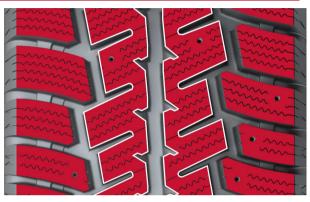


#### **Customer Benefit**

- ▶ Good braking on wet roads
- Resistance to aquaplaning and very good performance on snow slush

#### **Feature**

- ► **High sipe density** and optimal positioning of multiple grip edges
- ▶ Fast drainage of water from the contact area due to wide drainage channels



#### **Customer Benefit**

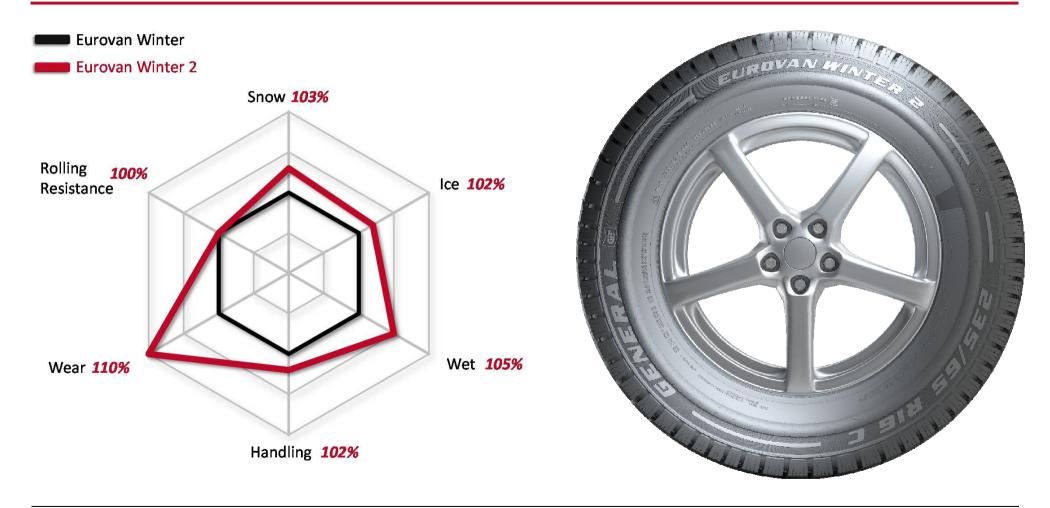
- Safe and excellent cornering handling
- ▶ Good directional stability

#### **Feature**

- Compact shoulder blocks improve cornering stability
- Two central, solid tread ribs improve straight driving

# Performance Comparison & Sidewall Design





### **Market Launch**

# **Product Range**



Rim	Size
14"	185 R 14 C 102/100Q
15"	195/70 R 15 C 104/102R
15"	215/70 R 15 C 109/107R
15"	225/70 R 15 C 112/110R
16"	195/60 R 16 C 99/97T
16"	195/65 R 16 C 104/102T (100T)
16"	195/75 R 16 C 107/105R
16"	205/65 R 16 C 107/105T (103T)
16"	205/75 R 16 C 110/108R
16"	215/60 R 16 C 103/101T
16"	215/65 R 16 C 109/107R (106T)
16"	215/75 R 16 C 113/111R
16"	225/65 R 16 C 112/110R
16"	235/65 R 16 C 115/113R
16"	235/65 R 16 C 115/113R SD*

Sizes: 14 (+ 1 studded\*)

▶ Speed Rating: Q to T

▶ Width: 185 to 235

> Aspect Ratio: 60 to 85

**AVAILABLE IN THE MARKET** 

▶ Q2 2017



#### **EU TYRE LABEL**





### **Overview**

# Eurovan A/S 365



- General Tire's entry to European Van A/S market
- Development focus
  - > 3PMS marking to ensure legal compliance in winter use
  - Balanced driving comfort
- ➤ Two C tires for speeds up to 210 km/h



# Eurovan A/S 365





#### **Customer Benefit**

- ▶ High performance on wet roads
- Good aquaplaning resistance and short braking distances on wet roads

#### **Feature**

- Step-sipes with prolonged edge length improve interlocking with wet roads
- ▶ Wide lateral shoulder grooves lead to efficient water drainage

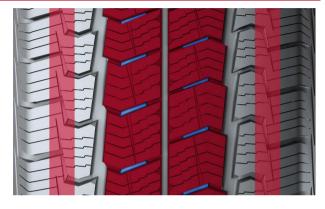


#### **Customer Benefit**

- ▶ Good grip on snow
- Strong braking performance on snowy roads

#### **Feature**

- Snow is trapped in the **pocket** and improves traction behavior due to snow-snow-friction
- Enhanced traction on snow due to **step-shaped groove edges**



#### **Customer Benefit**

▶ Good directional stability and safe cornering on dry, wet and snowy roads

#### **Feature**

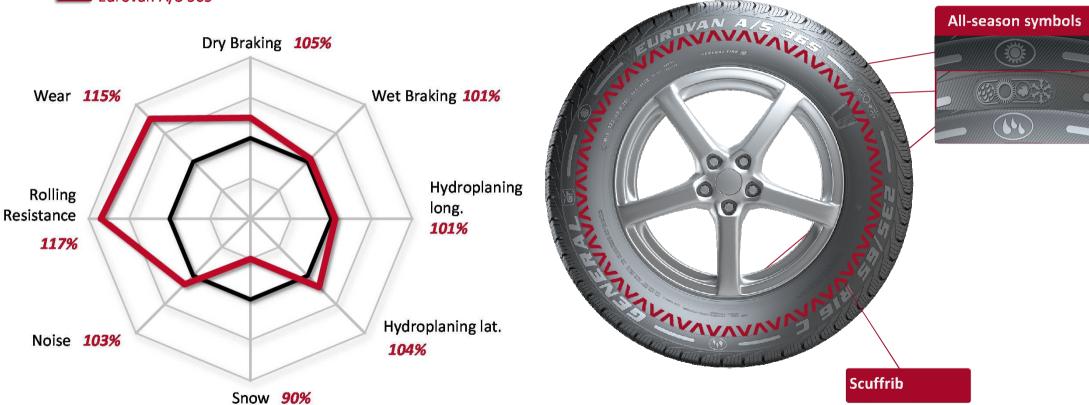
- Ribbon structure of the pattern with tie bar in center
- ► Handling rib in the shoulder improves vehicle dynamic due to stiffness distribution

# GENERALTIRE

# Performance Comparison & Sidewall Design

Eurovan Winter 2

Eurovan A/S 365



### **Market Launch**

# **Product Range**



Rim	Size
15"	195/70 R 15 C 104/102R
15"	215/70 R 15 C 109/107R
15"	225/70 R 15 C 112/110R
16"	195/60 R 16 C 99/97H
16"	195/65 R 16 C 104/102T (100T)
16"	195/75 R 16 C 107/105R
16"	205/65 R 16C 107/105T (103H)
16"	205/75 R 16 C 110/108R
16"	215/65 R 16C 109/107T (106T)
16"	215/75 R 16 C 113/111R
16"	225/65 R 16 C 112/110R
16"	235/65 R 16 C 115/113R

Sizes: 12

▶ Speed Rating: R to H

▶ Width: 195 to 235

▶ Rim diameter: 15" to 16"

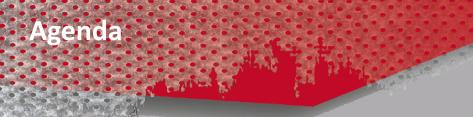
#### EU TYRE LABEL



**AVAILABLE IN THE MARKET** 

▶ Q2 2017







# **New Products 2017**

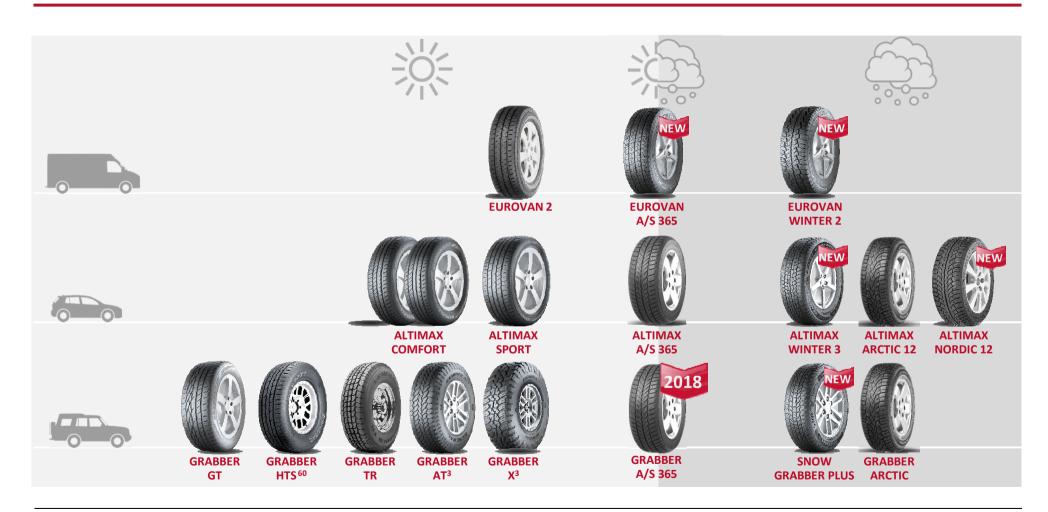
Range Extension 2018

Grabber AT<sup>3</sup> & Grabber X<sup>3</sup> Status

# **Range Extension**

# Grabber A/S 365 -> 2018





### **Sneek Preview**

# Grabber A/S 365



- ▶ General Tire's new entry to European SUV/4x4 A/S market
- ▶ Planned market launch Q1-Q2/2018
  - > 3PMS marking to ensure legal compliance in winter use
  - Starting range of 5 popular SUV/4x4 sizes

Rim	Size
17"	215/60R17 96H FR
17"	225/65R17 102V XL FR
17"	235/65R17 108V XL FR
18"	235/60R18 107V XL FR
19"	255/50R19 107V XL FR

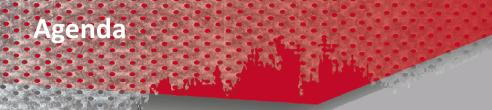


# **Tire Line Addition 2018**





4x4 / SUV			Passenger car		
Season	Pattern	Size	Season	Pattern	Size
SU	Grabber GT	285/35R23 107Y XL	SU	Altimax Sport	235/40R19 96Y XL
SU	Grabber HTS60	265/65R17 112H	WI	Altimax Winter 3	185/65R15 92T XL
SU	Grabber HTS60	265/60R18 110H	AS	Altimax A/S 365	195/45R16 84V XL
SU	Grabber AT <sup>3</sup>	LT265/60R18 119/116S LRE			
SU	Grabber X <sup>3</sup>	Additions from the US range			





**New Products 2017** 

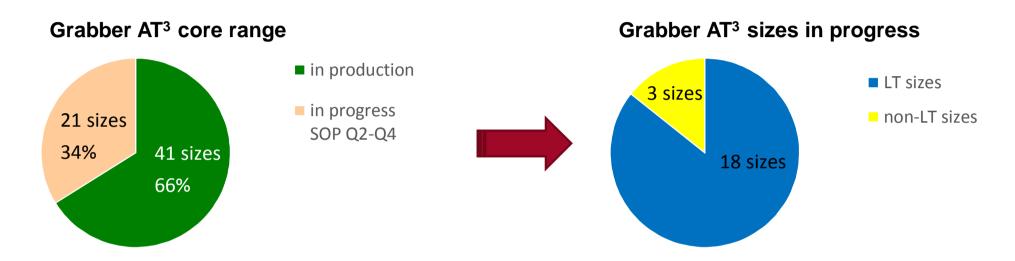
**Range Extension 2018** 

**○ Grabber AT³ & Grabber X³ Status** 

### **GRABBER AT<sup>3</sup>**

### **Industrialization Status**



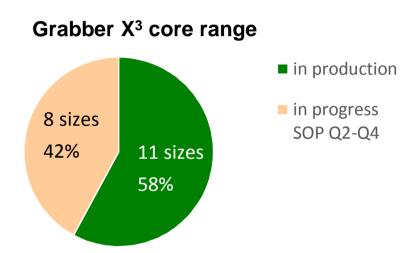


- Challenges in industrialization of a wide LT range
  - Long certification timing (UN-ECE, 3PMSF)
  - Highly complicated production process
  - ▶ Need for investment in machinery capable of LT production

### **GRABBER X3**

### **Industrialization Status**





- Challenges in industrialization of Grabber X<sup>3</sup>
  - The complexity of LT production
  - Limitation in 3 ply production capacity
  - Need for investment in machinery

### ▶ POR and M+S marking

- Amendment to UNECE Regulations effective Mar 2017.
- ▶ Possible to <u>receive UN Certificates</u> for POR tires marked with M+S.
- ▶ Target: all 8 sizes in progress will receive POR and M+S marking from the start.
- ▶ UN Certification for 11 running sizes in progress.

### **GRABBER X3**

## **Industrialization Status**



- Addition of the US sizes to EMEA range (from Q2 to Q4 2018)
- UN Certification to be granted.

Size	LI&SI	LR	SW
255/75 R 17	111/108Q	С	BSW
265/70 R 17	121/118Q	Ε	SRL
265/75 R 16	112/109Q	C	SRL
285/70 R 17	121/118Q	Ε	SRL
295/70 R 17	121/118Q	Ε	SRL
295/70 R 17	121/118Q	Ε	BSW
305/55 R 20	121/118Q	Ε	BSW
305/55 R 20	121/118Q	Е	SRL

Size	LI&SI	LR	SW
33 X 10.50 R 15	114Q	С	SRL
33 X 12.50 R 17	114Q	D	SRL
33 X 12.50 R 18	118Q	E	SRL
33 X 12.50 R 18	118Q	E	BSW
33 X 12.50 R 20	114Q	E	BSW
35 X 12.50 R 17	121Q	E	SRL
35 X 12.50 R 17	121Q	E	BSW
35 X 12.50 R 20	121Q	E	BSW
35 X 12.50 R 20	121Q	E	SRL

### **OE APPROVAL**

### Mercedes G-Class



- LT265/75R16 121/118R (123/120Q) LRE FR GRABBER AT2
- ∨ Vehicle model: G300
- OE delivery has started.
- S. GH 3085
- Mainly military business
  - Swiss, Australian, Algerian Armies etc.



