

Manufacturer's Certificate

911 (991)

35/21 ENU 4400

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Approved Wheels and Tires (35/21)

Revision: This bulletin replaces bulletin Group 4 44/19, dated February 27, 2020.

Model Year: As of 2017

Vehicle Type: 911 Carrera (991)/911 Targa (991)/911 Turbo (991)

Information: Approval status: May 2021

Sizes: Permissible tire and wheel sizes

(RO = rim offset in mm, FA = front axle, RA = rear axle)

Tires	Tire sizes	Wheel sizes	Snow chains
911 Carr	era		
Summer	FA: 235/40 ZR 19 (92Y) RA: 295/35 ZR 19 (100Y)	FA: 8.5J x 19 H2, RO 50	No
	- Not for vehicles with Porsche Ceramic Composite Brake (PCCB)	RA: 11.5J x 19 H2, RO 76	INO
	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 8.5J x 20 H2, RO 49	No
	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	RA: 11.5J x 20 H2, RO 76	No
	FA: 235/40 R 19 92V M+S RA: 295/35 R 19 100V M+S	FA: 8.5J x 19 H2, RO 50	RA only
Winter	- Not for vehicles with Porsche Ceramic Composite Brake (PCCB)	RA: 11J x 19 H2, RO 77	
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S RA: 295/30 R 20 101V XL M+S	FA: 8.5J x 20 H2, RO 49 RA: 11J x 20 H2, RO 78	RA only
911 Carrera S, 911 Carrera T			_
Summer	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 8.5J x 20 H2, RO 49	No
Summer	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	RA: 11.5J x 20 H2, RO 76	No

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Tires	Tire sizes	Wheel sizes	Snow chains
	FA: 235/40 R 19 92V M+S RA: 295/35 R 19 100V M+S		
	- Not for vehicles with Porsche Ceramic Composite Brake (PCCB)	FA: 8.5J x 19 H2, RO 50	RA only
Winter	- Not for vehicles with rear axle steering	RA: 11J x 19 H2, RO 77	
	- Not for vehicles with Power Kit.		
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S RA: 295/30 R 20 101V XL M+S	FA: 8.5J x 20 H2, RO 49 RA: 11J x 20 H2, RO 78	RA only
911 Carr	era 4, 911 Targa 4		
	FA: 235/40 ZR 19 (92Y) RA: 295/35 ZR 19 (100Y)	FA: 8.5J x 19 H2, RO 50	No
Summer ·	- Not for vehicles with Porsche Ceramic Composite Brake (PCCB)	RA: 11.5J x 19 H2, RO 56	
	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 8.5J x 20 H2, RO 49	No
	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	RA: 11.5J x 20 H2, RO 56	No
	FA: 235/40 R 19 92V M+S RA: 295/35 R 19 100V M+S	FA: 8.5J x 19 H2, RO 50	RA only
Winter	- Not for vehicles with Porsche Ceramic Composite Brake (PCCB)	RA: 11J x 19 H2, RO 56	
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S RA: 295/30 R 20 101V XL M+S	FA: 8.5J x 20 H2, RO 49 RA: 11J x 20 H2, RO 56	RA only
911 Carr	era 4S, 911 Targa 4S		
Summer	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 8.5J x 20 H2, RO 49	No
Summer	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	RA: 11.5J x 20 H2, RO 56	No

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Tires	Tire sizes	Wheel sizes	Snow chains
	FA: 235/40 R 19 92V M+S RA: 295/35 R 19 100V M+S		
	- Not for vehicles with Porsche Ceramic Composite Brake (PCCB)	FA: 8.5J x 19 H2, RO 50	RA only
Winter	- Not for vehicles with rear axle steering	RA: 11J x 19 H2, RO 56	
	- Not for vehicles with Power Kit.		
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S RA: 295/30 R 20 101V XL M+S	FA: 8.5J x 20 H2, RO 49 RA: 11J x 20 H2, RO 56	RA only
911 Carr	era GTS, 911 Carrera 4 GTS, 911 T	arga 4 GTS	
	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 8.5J x 20 H2, RO 49 RA: 11.5J x 20 H2, RO 56	No
Summer	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	or FA: 9J x 20, RO 51 RA: 12J x 20, RO 63	No
Winter		FA: 8.5J x 20 H2, RO 49 RA: 11 J x 20 H2, RO 59	
	FA: 245/35 R 20 91V M+S	- Vehicles without central wheel lock	DA audio
	RA: 295/30 R 20 97V M+S RA: 295/30 R 20 101V XL M+S	FA: 8.5J x 20 H2, R0 51 RA: 11J x 20 H2, R0 59	RA only
		- Vehicles with central wheel lock	
911 Turb	o, 911 Turbo S		
Summer	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 9J x 20 H2, RO 51	No
Summer	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	RA: 11.5J x 20 H2, RO 56	No

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Tires	Tire sizes	Wheel sizes	Snow chains
		FA: 8.5J x 20 H2, RO 49 RA: 11J x 20 H2, RO 56	
FA: 245/35 R 20 91V M+S Winter RA: 295/30 R 20 97V M+S RA: 295/30 R 20 101V XL M+S	- Vehicles without central wheel lock		
		- *)	
	RA: 295/30 R 20 97V M+S	FA: 8.5J x 20 H2, RO 51 RA: 11J x 20 H2, RO 56	RA only
	W. 270700 K. 20 TOTV X. 2. M TO	- Vehicles without central wheel lock	
		FA: 8.5J x 20 H2, RO 51 RA: 11J x 20 H2, RO 59	
		- Vehicles with central wheel lock	

^{*)} This wheel/tire combination is contained in the general certification for 911 Turbo vehicles.

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Wheels: Overview of Porsche wheels for summer and winter tires

Identification on inside of wheel:

Wheel size, rim offset (RO) in mm, part number (without color code FFF) and Porsche logo

19-inch "Carrera 6" wheel

FA: 8.5J x 19 H2, R0 50 Part No. 991.362.510.00_FFF

RA: 11.5J x 19 H2, RO 76 Part No. 991.362.560.00_FFF

RA: 11.5J x 19 H2, RO 56 Part No. 991.362.560.01_FFF

RA: 11J x 19 H2, RO 77 Part No. 991.362.560.02_FFF

RA: 11J x 19 H2, RO 56 Part No. 991.362.560.03_FFF



20-inch "Carrera S4" wheel

FA: 8.5J x 20 H2, RO 49 Part No. 991.362.710.00_FFF

RA: 11.5J x 20 H2, RO 76 Part No. 991.362.760.00_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.760.01_FFF

RA: 11J x 20 H2, RO 78 Part No. 991.362.760.02_FFF

RA: 11J x 20 H2, RO 56 Part No. 991.362.760.03_FFF



20-inch "Carrera Classic II" wheel

FA: 8.5J x 20 H2, RO 49 Part No. 991.362.711.02_FFF

RA: 11.5J x 20 H2, RO 76 Part No. 991.362.761.04_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.761.05_FFF

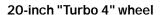


20-inch "RS Spyder Design" wheel

FA: 8.5J x 20 H2, RO 49 Part No. 991.362.712.00_FFF

RA: 11.5J x 20 H2, RO 76 Part No. 991.362.760.04_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.760.05_FFF



FA: 8.5J x 20 H2, RO 49 Part No. 991.362.711.00_FFF

FA: 9J x 20 H2, RO 51 Part No. 991.362.720.00_FFF

RA: 11.5J x 20 H2, RO 76 Part No. 991.362.761.00_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.761.01_FFF

20-inch "911 Turbo III" wheel

FA: 8.5J x 20 H2, RO 51 Part No. 991.362.161.06_FFF

RA: 11J x 20 H2, RO 56

Part No. 991.362.166.09_FFF







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20-inch "911 Sport Classic" wheel

FA: 9J x 20 H2, R0 51 Part No. 991.362.162.41_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.167.42_FFF



20-inch "911 Carrera Sport" wheel

FA: 8.5J x 20 H2, RO 49

Part No. 991.362.722.00_FFF/991.363.722.0

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RA: 11.5J x 20 H2, RO 76 Part No. 991.362.772.00 _FFF/991.363.772.00 _FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.772.01 _FFF/991.363.772.01 _FFF



20-inch "911 Turbo Sport 3" wheel

FA: 9J x 20 H2, RO 51

Part No. 991.362.721.00_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.771.00_FFF



20-inch "911 Turbo Sport II" wheel

FA: 8.5J x 20 H2, RO 51 Part No. 991.362.161.34_FFF

RA: 11J x 20 H2, RO 59

Part No. 991.362.166.34_FFF



20-inch wheel "CFRP"

FA: 9J x 20 H2, RO 51 Part No. 991.362.723.01_FFF

RA: 11.5J x 20 H2, RO 56 Part No. 991.362.773.01_FFF





Information

Improper handling can damage the wheel surface.

Carry out tire removal and mounting using a bead holding-down device only.

Use a leather pad on the rim flange to support the valve insertion tool.

Only use the Porsche centering clamping set for balancing.

Do not use brushes to clean the wheels because brushes can cause deep scratches that cannot be removed by polishing.

Never use solvents or other chemical substances on tires.

Wheel Mounting:

using wheel bolts:

Tightening torque 160 Nm (118 ftlb.)

using central wheel lock:

Tightening torque 600 Nm (444 ftlb.)

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Driving with different tires (mixed tires)

- Uncontrollable vehicle handling
- ⇒ Only use tires of the same make and type, with the same speed index and the same specification code (N0, N1, N2, ...) on a vehicle.

Summer Tires:

Model	Tire size	Tire make and type/ label value (link to EU database)		
		Goodyear F1 Eagle Asymmetric 2 N0 (Inside/Outside)		
	FA: 235/40 ZR 19	FA: https://eprel.ec.europa.eu/qr/531120		
	(92Y)	RA: https://eprel.ec.europa.eu/qr/531124		
	RA: 295/35 ZR 19 (100Y)	Yokohama Advan Sport V105 N0 (Inside/Outside)		
		FA: https://eprel.ec.europa.eu/qr/578237		
		RA: https://eprel.ec.europa.eu/qr/632945		
911 Carrera,	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	Pirelli P Zero N1 (Inside/Outside)		
911 Carrera 4, 911 Targa 4		FA: https://eprel.ec.europa.eu/qr/595261		
711 larga 4		RA: https://eprel.ec.europa.eu/qr/595262		
		Pirelli P Zero Corsa NO (Inside/Outside)		
		- Ultra High Performance tires		
		FA/RA: Data currently not available		
	FA: 245/35 ZR 20 (95Y) XL	Michelin Pilot Sport 4S NO (Rotation)		
	RA: 305/30 ZR 20 (103Y) XL	FA: https://eprel.ec.europa.eu/qr/411317		
	(1001) //L	RA: https://eprel.ec.europa.eu/qr/408604		

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Model	Tire size	Tire make and type/ label value (link to EU database)	
911 Carrera S, 911 Carrera T, 911 Carrera 4S, 911 Targa 4S, 911 Carrera GTS, 911 Carrera 4	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	Pirelli P Zero N1 (Inside/Outside) FA: https://eprel.ec.europa.eu/qr/595261 RA: https://eprel.ec.europa.eu/qr/595262 Pirelli P Zero Corsa NO (Inside/Outside) - Ultra High Performance tires FA/RA: Data currently not available	
911 Targa 4 GTS, 911 Turbo, 911 Turbo S	FA: 245/35 ZR 20 (95Y) XL RA: 305/30 ZR 20 (103Y) XL	Michelin Pilot Sport 4S NO (Rotation) FA: https://eprel.ec.europa.eu/qr/411317 RA: https://eprel.ec.europa.eu/qr/408604	

Winter Tires:

Model	Tire size	Tire make and type/ label value (link to EU database)
911 Carrera S, 911 Carrera T,		Pirelli Winter 240 Sottozero Series II NO (Inside/Outside)
911 Carrera, 911 Carrera 4, 911 Carrera 4S, 911 Targa 4 911 Targa 4S	FA: 235/40 R 19 92V	FA: https://eprel.ec.europa.eu/qr/594295
	M+S	RA: https://eprel.ec.europa.eu/qr/594294
	RA: 295/35 R 19 100V M+S	Continental WinterContact TS 830P N1 (Inside/Outside)
		FA: https://eprel.ec.europa.eu/qr/506096
		RA: https://eprel.ec.europa.eu/qr/506095
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S	Pirelli Winter 240 Sottozero Series II N0 (Inside/Outside)
		FA: https://eprel.ec.europa.eu/qr/594297
		RA: https://eprel.ec.europa.eu/qr/594293
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 101V XL M+S	Michelin Pilot Alpin PA4 N1 (Rotation)
		FA: https://eprel.ec.europa.eu/qr/412844
	7.2	RA: https://eprel.ec.europa.eu/qr/411498

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Model	Tire size	Tire make and type/ label value (link to EU database)
911 Carrera GTS 911 Carrera 4 GTS 911 Targa 4 GTS 911 Turbo	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S	Pirelli Winter 240 Sottozero Serie II NO (Inside/Outside) FA: https://eprel.ec.europa.eu/qr/594297 RA: https://eprel.ec.europa.eu/qr/594293
911 Turbo S	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 101V XL M+S	Michelin Pilot Alpin PA4 N1 (Rotation) FA: https://eprel.ec.europa.eu/qr/412844 RA: https://eprel.ec.europa.eu/qr/411498

Arrow with inscription "Rotation" = directional mounting

"Inside/Outside" inscription or "Left" or "Right" = mounting on specified side only

Arrow with both inscriptions "Rotation" and = directional mounting on specified side only.

"Inside/Outside"

Arrow with both inscriptions "Rotation" and "Left" = directional mounting on specified side only. or "Right"

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Information

"N..." = Specification code of the tire, e.g. "N0", "N1", "N2" ... The complete "N ..." code of the tires in question must be shown on the tire sidewall near the tire type designation.

Instructions for correct mounting of the tires are also given on the tire sidewall. If there are no mounting instructions on the tire sidewall, the tire must be mounted so that the DOT marking is visible from the outside.



Information

If a tire is damaged and it is not possible to determine with absolute certainty that there is no ply damage - with all of its consequences - or if the tire was thermally and/or mechanically overloaded due to a loss of pressure or other prior damage, replace the tire in question for safety reasons.

Repairs to "V", "W", "Y" and "ZR" tires are not permissable, as well as the use of inner tubes in tubeless tires. Please inform your customers accordingly. It is advisable to mount winter tires at temperatures below **45° F/7°C**, because the driving characteristics of summer tires are reduced at low temperatures. Extremely low temperatures can cause permanent damage to summer tires.

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Incorrect tire pressure

- · Uncontrollable vehicle handling
- ⇒ Adjust the tire pressure according to specifications. Never allow the pressure to fall below the minimum pressure.
- ⇒ Check age of tires. Replace tires that are more than 6 years old.
- ⇒ Perform visual inspections.
- ⇒ Use only tires recommended by Porsche.



Information

The tire pressure applies only to the tire makes and types approved by Porsche, and is specified for cold tires (approx. **68° F/20°C**). The tire pressures must never be lower than the specified values.

Standard tire pressure for summer tires

\\/\backsquare	911 Carrera				991 Carrera S, 911 Carrera T			
Wheel size	Part	load	Full	load	Part	load	Full	load
3120	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.1 bar 210 kPa 30 psi	2.5 bar 250 kPa 36 psi	2.4 bar 240 kPa 34 psi	3.0 bar 300 kPa 43 psi	ı	ı	I	ı
20-inch wheels	2.2 bar 220 kPa 31 psi	2.6 bar 260 kPa 37 psi	2.4 bar 240 kPa 34 psi	3.1 bar 310 kPa 44 psi	2.2 bar 220 kPa 31 psi	2.6 bar 260 kPa 37 psi	2.4 bar 240 kPa 34 psi	3.1 bar 310 kPa 44 psi

	91	1 Carrera 4	1, 911 Targ	a 4	991 Carrera 4S, 911 Targa 4S			
Wheel size	Part load		Full	Full load		Part load Full load		load
3120	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.1 bar 210 kPa 30 psi	2.6 bar 260 kPa 37 psi	2.4 bar 240 kPa 34 psi	3.0 bar 300 kPa 43 psi	I	I	I	I
20-inch wheels	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi	2.4 bar 240 kPa 34 psi	3.1 bar 310 kPa 44 psi	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi	2.4 bar 240 kPa 34 psi	3.1 bar 310 kPa 44 psi



Wheel			S, 911 Car arga 4 GTS		911 Turbo, 911 Turbo S			S
size	Part	load	Full	load	Part	load	Full	load
	FA	RA	FA	RA	FA	RA	FA	RA
20-inch wheels	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi	2.4 bar 240 kPa 34 psi	3.1 bar 310 kPa 44 psi	2.4 bar 240 kPa 34 psi	3.0 bar 300 kPa 43 psi	2.6 bar 260 kPa 37 psi	3.3 bar 330 kPa 47 psi

Standard tire pressure for winter tires

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Wheel size	911 Carrera, 911 Carrera S, 911 Carrera T, 911 Carrera 4S, 911 Targa 4, 911 Targa 4S				911 Carrera GTS, 911 Carrera 4 GTS, 911 Targa 4 GTS			
	Part load		Full load		Part load		Full load	
	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.2 bar 220 kPa 31 psi	2.3 bar 230 kPa 33 psi	2.2 bar 220 kPa 31 psi	2.6 bar 260 kPa 37 psi	ı	ı	ı	ı
20-inch wheels	2.2 bar 220 kPa 31 psi	2.5 bar 250 kPa 36 psi	2.2 bar 220 kPa 31 psi	2.9 bar 290 kPa 42 psi	2.2 bar 220 kPa 31 psi	2.5 bar 250 kPa 36 psi	2.2 bar 220 kPa 31 psi	2.9 bar 290 kPa 42 psi

	911 Turbo, 911 Turbo S					
Wheel size	Part	load	Full load			
	FA	RA	FA	RA		
20-inch wheels	2.2 bar 220 kPa 31 psi	2.5 bar 250 kPa 36 psi	2.2 bar 220 kPa 31 psi	3.0 bar 300 kPa 43 psi		

Comfort tire pressure for summer tires up to 270 km/h (165 mph) – only for vehicles with Tire Pressure Monitoring (TPM) and "Comfort pressure" menu in the multi-function display (depending on the country)



Driving at high speed with low tire pressure can cause irreparable damage to tires.

⇒ Set Comfort air pressure for tires only on vehicles with Tire Pressure Monitoring System (TPMS) and "Comfort" selected in the "Tire pressure" main menu in the multi-function display.

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Wheel size	911 Carrera				911 Carrera S, 911 Carrera T			
	Part load		Full load		Part load		Full load	
	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.0 bar 200 kPa 29 psi	2.2 bar 220 kPa 31 psi	2.1 bar 210 kPa 30 psi	2.6 bar 260 kPa 37 psi	I	I	I	Ι
20-inch wheels	2.0 bar 200 kPa 29 psi	2.2 bar 220 kPa 31 psi	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi	2.0 bar 200 kPa 29 psi	2.2 bar 220 kPa 31 psi	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi

Wheel size	91 ⁻	1 Carrera 4	1, 911 Targ	ja 4	911 Carrera 4S, 911 Targa 4S, 911 Carrera GTS, 911 Carrera 4 GTS, 911 Targa 4 GTS			
	Part load		Full load		Part load		Full load	
	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.0 bar 200 kPa 29 psi	2.3 bar 230 kPa 33 psi	2.1 bar 210 kPa 30 psi	2.6 bar 260 kPa 37 psi	-	ı	ı	-
20-inch wheels	2.0 bar 200 kPa 29 psi	2.3 bar 230 kPa 33 psi	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi	2.0 bar 200 kPa 29 psi	2.3 bar 230 kPa 33 psi	2.2 bar 220 kPa 31 psi	2.7 bar 270 kPa 39 psi

	911 Turbo, 911 Turbo S						
Wheel size	Part	load	Full load				
	FA	RA	FA	RA			
	2.2 bar	2.5 bar	2.3 bar	2.8 bar			
20-inch wheels	220 kPa	250 kPa	230 kPa	280 kPa			
	31 psi	36 psi	33 psi	40 psi			



Incorrectly installed snow chains

- · Uncontrollable vehicle handling
- \Rightarrow Do not exceed the maximum speed of Speed 30 mph/50 km/h.
- ⇒ Observe installation instructions from the chain manufacturer.

Porsche offers the following snow chains as accessories:

Tire size	Porsche Part No.	Type of snow chain	
295/35 R 19 M+S	001 044 (00 00	Link-type chain, quick fit	
295/30 R 20 M+S	991.044.600.00		

Wheel Storage: •

- Tires must be stored in a cool, dry and dark room with adequate ventilation.
- Tires must never come into contact with fuel, oil, grease or chemicals.
- Do not store summer tires in storage areas with ambient temperatures of less than 5° F (-15° C).
- Complete wheel & tire assemblies can be stacked for storage; we recommend that you increase the tire pressure by approximately 6 psi (0.4 bar).
- Optimum conditions for storage of the complete wheels are provided by the Original Porsche storage trolley, Part No. 000.044.000.38.
- If the tires are not mounted on wheels, it is best to store them in a vertical position.
- We recommend that you turn tires stored in this position every two weeks in order to prevent flat spots.
- Tires that are stacked in a horizontal position will become severely deformed and cannot be seated properly in the rim flange when they are mounted.

General Information:

- Always use new valves when changing tires.
- Always observe any possible instructions concerning the rolling direction and/or specifying which side the tires must be mounted on.
- Coat the tire beads and humps with mounting lubricant before mounting the tire. This ensures that the tire beads will slide over the humps easily.
- In order to prevent the tire from turning on the wheel, avoid extreme driving maneuvers (acceleration and braking) during the first 100 to 200 miles with new or recently mounted tires.
- In order to optimize smoothness of rolling, it is appropriate and necessary in individual cases to mount the tire in a certain (favorable) position with respect to the wheel (matching).

Matching (uncontrolled and controlled) is explained below: Uncontrolled matching:

• Turning the tire on the wheel by 90° or 120° if necessary in order to achieve an acceptable value with regard to rolling smoothness (true running, imbalance and weight distribution of balance weights).

Controlled matching:

- With a balancing machine with matching program. In most cases, this produces an even better result
 with regard to the rolling smoothness (true running, imbalance and weight distribution of the balance
 weights) than can be achieved with uncontrolled matching.
- Maximum permissible radial runout and lateral runout of the wheels < 0.7 mm. Maximum
 permissible radial runout and lateral runout of the wheels with tires < 1.25 mm. Values < 1.50 mm
 -ideally approx. 0.5 mm are desirable.
- The mounting pressure (seating pressure) of 58 psi/4.0 bar overpressure must not be exceeded before both tire beads are evenly seated on the rim flange.

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New Tires (Replacements):

- If new tires are to be mounted or the tires of one axle are to be replaced, tires of the same make, type and with the same specification code must always be used on each of the two axles.
- If tires are replaced on one axle only, the different tread depth from that on the other axle can cause a noticeable change in the familiar handling.
- This is especially the case if new tires are mounted on the rear axle.
- This effect decreases with increasing tire mileage.

When replacing a tire on an axle, make sure that the tread depth of the new tire does not differ from that of the other tire on the same axle by more than 30 %.

Refer to WM 449503 for specific details of the vehicle you are working on.

- >The 2mm specification will be given here.
- > If there is none listed then the default is 30%.

Repairs to Tires:

- If a tire is damaged and it cannot be determined with absolute certainty that there is no ply damage
 - with all of its consequences or if the tire was thermally or mechanically overloaded due to a loss
 of pressure or other prior damage, we recommend replacement of the tire in question for safety
 reasons.
- Repairs to "V", "W", "Y" and "ZR" tires are not permissible, as is the use of inner tubes in tubeless tires.

Tire Aging:

- Tires age due to chemical and physical processes, which can impair their function.
- Tires that are stored unused for an extended period harden and become brittle faster than tires that are in continual use.
- Hairline aging cracks can occur on older tires.
- On tires in continual use, the kneading action activates the plasticizer in the rubber and thereby prevents hardening and cracking.
- Therefore, attention should be paid not only to the tread depth but also to the age of the tire.
- Tires should not be older than 6 years.
- The age of the tire can be determined via the DOT code on the sidewall, which indicates the production date of the tire: e.g. DOT 2201= 22nd week of 2001.

Important Notice: Technical Bulletins issued by Porsche Cars North America, Inc. are intended only for use by professional automotive technicians who have attended Porsche service training courses. They are written to inform those technicians of conditions that may occur on some Porsche vehicles, or to provide information that could assist in the proper servicing of a vehicle. Porsche special tools may be necessary in order to perform certain operations identified in these bulletins. Use of tools and procedures other than those Porsche recommends in these bulletins may be detrimental to the safe operation of your vehicle, and may endanger the people working on it. Properly trained Porsche technicians have the equipment, tools, safety instructions, and know-how to do the job properly and safely. Part numbers listed in these bulletins are for reference only. The work procedures updated electronically in the Porsche PIWIS diagnostic and testing device take precedence and, in the event of a discrepancy, the work procedures in the PIWIS Tester are the ones that must be followed.