

# RALLY TYRES



**PIRELLI**

**GRAVEL**

**SCORPION™**

**ASPHALT**

**P ZERO™**

**SNOW**

**SOTTOZERO™**

**ICE**

**SOTTOZERO™ ICE**



# Rally Tyres

**GRAVEL** **SCORPION™**



**K**

Notable steering precision and adherence in traction and braking, above all on fast roads, even at low levels of grip. The rigid structure and the dense tread pattern ensure good stability especially in fast cornering characterized by prolonged stress on the tyre. The asymmetric tread pattern ensures excellent performance in traction and braking thanks to the internal blocks. The external blocks facilitate excellent directionality and high lateral grip. Available in different compounds, according to the characteristics of adherence of the ground and the weather conditions. For the hardest and most severe surfaces the K is available in a "reinforced" version. The features of directionality and traction are combined with resistance and integrity thanks to its reinforced structure both in the tread zone and in the sidewalls, which are more resistant to lacerations and cuts.

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM	Condition		
							wet	damp	dry
165/70R15	K6-K4	610	171	150	1915	5,5	6	6	4
175/70R15	K6-K4	625	191	165	1965	6,5	6	6	4
185/70R15	K6-K4-K8	635	199	165	1995	6,5	8	6	6
195/70R15	K2-K4-K6	650	203	180	2045	6,5	6	6	4/2
205/65R15	K2-K4-K6-Reinf.K4	650	220	180	2045	7	6/8	6	4/2
205/65R15	K8	650	220	180	2045	7	8		

Tread Compound HARD 2 - MEDIUM 4 - SOFT 6 - SUPER SOFT 8



**T**

This tyre is suitable for use on inconsistent or gravelly non-asphalted surfaces, usually with low adherence. Not recommended for heavy use on highly abrasive surfaces. The tyre's tread profile is flat with sharp edges, aiding directionality and lateral grip. This aids directionality and side grip. The radial dowels guarantee top traction, especially on soft ground. It has special lateral reinforcement that protect the tyre from any damage caused by impacts.

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM	Condition		
							wet	damp	dry
165/70R14	T4-T6	590	178	150	1855	6,0	6	6	4

Tread Compound MEDIUM 4 - SOFT 6



**GM**

Pirelli GM™ is a tyre for gravel roads, developed for historic rally cars.

The tread pattern design has been optimized for the specific use in dry, moist, wet or mud conditions according to the compound chosen.

The strength of Pirelli GM™ is in its versatility of use.

A unique asymmetric tread able to work both as directional and tractive, ensuring maximum performance in all weather conditions.

The secret has three versions: GM4, GM6 and GM8. The first is the compound developed for dry terrain, ideal for maintaining high and stable performance on hard abrasive surfaces at high temperatures. The GM6 compound ensures traction and lateral grip to the limit on wet roads at low temperatures. With GM8 performance levels are enhanced on mud at low temperatures.

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM	Condition		
							wet	damp	dry
165/80R13	GM4-GM6-GM8	600	163	135	1885	5,5	8	6	4
185/70R13	GM4-GM6-GM8	600	180	160	1885	5,5	8	6	4
185/70R15	GM6-GM8	640	203	160	2015	6,5	8	8	6

Tread Compound MEDIUM 4 - SOFT 6 - SUPER SOFT 8



# Rally Tyres

# GRAVEL

SCORPION™



**KM**

It is suited above all to damp, wet and at-the-limit muddy conditions. Usable also in dry conditions on inconsistent, loose or sandy ground. Less suited to compact and fast routes.

The tread pattern derives from the K. The reduced width of the tread and the pattern with more voids ensure the correct balance between performance and roadholding on surfaces with a low grip.

The less rigid construction allows excellent adaptation of the tyre to the ground and provides easier steering, in particular on very winding routes (also on irregular surface) where a good level of adherence is needed.

Available in a variety of compounds for use in different weather conditions and with different levels of adherence to the ground.



**XR**

For particularly uneven ground; it is also highly recommended for mixed off/on-road routes, on hard, compact and abrasive surfaces. Thanks to its internal structure, specially designed to ensure easy steering and excellent resistance to stresses, it is particularly resistant to impact. The tread and sidewall profiles are designed to strengthen the structure in these areas and to ensure the maximum integrity of the tyre.

The symmetric tread ensures excellent stability on clean and abrasive surfaces. On the contrary, on surfaces covered by sand and gravel, it does not offer high directionality owing to the very compact tread pattern. Excellent resistance to wear thanks to the robustness of the design of the blocks and the profile.

Available in a variety of compounds for use in different weather conditions and with different levels of adherence to the ground.

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM	Condition wet damp dry
195/70R15	KM6	650	203	170	2045	6,5	6
205/65R15	KM4-KM6	650	215	170	2045	7	6    6    4

Tread Compound MEDIUM 4 - SOFT 6

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM	Condition wet damp dry
205/65R15	XR5-XR7	650	220	175	2045	7	7    7
225/55R15	XR5	645	222	195	2025	7	

Tread Compound MEDIUM 5 - SOFT 7



# Rally Tyres

## ASPHALT

P ZERO™



This product, designed for asphalt, has two longitudinal grooves which means that it can be used both in dry and wet conditions. The two longitudinal channels are positioned on the internal part of the tyre to ensure more effective water drainage and avoid aquaplaning. This also allows better cornering, when the car relies more heavily on the external part of the tyre that generates more grip thanks to a greater contact patch.

**RK**

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM	Condition		
							wet	damp	dry
175/60R14	RK5 - RK7	560	188	160	1765	6		7	5
175/60R14	RKW7	560	188	160	1765	6	W7		
195/50R15	RK5-RK7	580	192	180	1825	6,5		7	5
	RKW7	580	192	180	1825	6,5	W7		
195/50R16	RK5-RK7	600	193	190	1885	6,5		7	5
	RKW7	600	193	190	1885	6,5	W7		
205/45R17	RK5-RK7	625	203	200	1965	7		7	5
	RKW7	625	195	190	1965	7	W7		
* 215/40R17	RK5-RK7-RW7	625	223	208	1955	7,5	W7	7	5/7
235/40R18	RK5-RK7-RK9/SS <sup>(1)</sup>	650	225	210	2045	8		9/7	5
	RKS/W7**	650	225	210	2045	8	W7	W7	
	RKW7 V 70**	650	215	205	2045	8	W7		

Tread Compound HARD 5 - MEDIUM 7 - SOFT 9 - WET W7/S

\* New size

\*\* RKS (W7 - Stiffer construction)

RKW7 (W7/70 - Soft construction)

<sup>(1)</sup> RK9 = RKSS



# Rally Tyres

**SNOW** **SOTTOZERO™**



Specialist tyre for full snow road conditions. It has narrow blocks and deep grooves.  
Tyre designed for use on 100% snow conditions.

Studding:  
Max protrusion 2 mm



This tyre is characterized by a tread pattern ensuring better adaptability to different types of surfaces.  
It has dense siping in the center for better traction and breaking and solid blocks on the side for increased stability.  
These side blocks are patterned with stud holes.  
Tyre designed for use on mixed conditions up to 30/40% snow/ice and asphalt.

For cars Gr. N, WRC, S2000-R5-R3\*  
Studding:  
Max protrusion 2 mm

## S - SOTTOZERO SNOW

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM
135/90R16	S 16	648	140	100	2035	5

## SOTTOZERO SNOW

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM
195/45R17	Sottozero	625	203	185	1965	7
235/40R18	Sottozero/A	650	222	190	2045	8

These sizes are available in two versions: studded and not studded



This tyre is characterized by a tread pattern ensuring better adaptability to different types of surfaces.  
It has dense siping in the center for better traction and breaking and on each side blocks for better stability and is provided with stud holes.  
Tyre designed for use on mixed conditions up to 50/60% snow/ice and asphalt.

For cars R3 – R2  
Studding:  
Max protrusion 2 mm

## WM - SOTTOZERO SNOW

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM
165/80R15	WM	620	175	150	1960	6,5



# Rally Tyres

**ICE SOTTOZERO™ ICE**



Studded "Svezia" tyre, with directional asymmetric design which is ideal for snow-covered and icy surfaces. The special direction of the plugs, together with the patented Pirelli studding, guarantees maximum stability and grip of the studs, even in the most extreme surface conditions. Available with "Svezia" type studding only.

Studding:  
Max stud protrusion 7 mm  
(100% ice - frozen earth)  
Max stud protrusion 8 mm  
(50% snow - 50% ice)

## J - SOTTOZERO ICE

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM
145/85R16	J	648	159	115	2035	5,25



Studded "Svezia" tyre, with directional design which is ideal for snow-covered and icy surfaces. The special direction of the plugs, together with the patented Pirelli studding, guarantees maximum stability and grip of the studs, even in the most extreme surface conditions. Available with "Svezia" type studding only.

Stud protrusion 7 mm

## WR - SOTTOZERO ICE

SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM
135/85R15	WR5	620	146	95	1950	5
145/85R16	WR6	648	147	115	2035	5,25



Studded "Svezia" tyre, with directional asymmetric design which is ideal for snow-covered and icy surfaces. The special direction of the plugs, together with the patented Pirelli studding, guarantees maximum stability and grip of the studs, even in the most extreme surface conditions. Available with "Svezia" type studding only.

Studding:  
Max stud protrusion 7 mm

## SOTTOZERO ICE 1

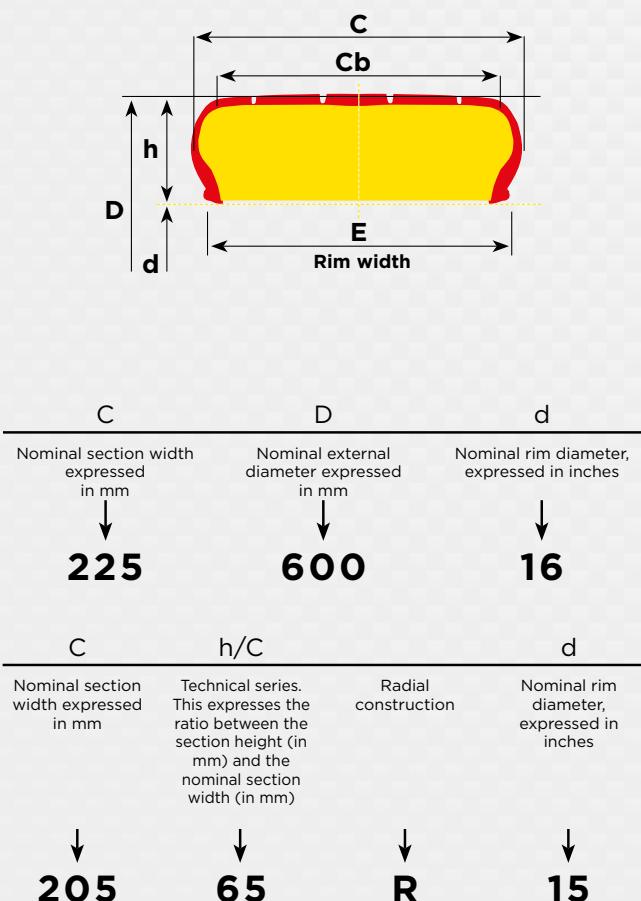
SIZE	VERSION	Ø mm D	SECTION WDT mm C	TREAD WDT mm Cb	Rolling circumference	RIM
205/65R15	Sottozero Ice 1 Left	650	202	145	2045	7
205/65R15	Sottozero Ice 1 Right	650	202	145	2045	7



## Rally Tyres

### TYRE IDENTIFICATION

The markings that appear on the side of the tyres indicate the basic size of the tyre, the rim diameter and the width of the rim. The examples reported below illustrate how to read two different types of marking that appear on the side of the rally tyres.

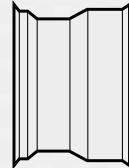


### MARKING

The treads of the various versions of rally tyres are described by one or two letters followed by a number. The letters identify the type of tread. The number after the letter indicates the type of use, for example: RX 7

### RIMS

The size of the rims indicated in this manual must be respected. If you have any doubts, please contact Pirelli staff.



### FITMENT

Make sure that tyres are fitted by experts with specialised dedicated machinery and equipment, following the correct safety procedures.

Before mounting the tyres, clean the surface of the beads and the area of the rim that comes into contact with the tyre.

Use ONLY special tyre lubricants for mounting tyres. Do NOT use silicone or petroleum lubricants.

Check the state of the valves to prevent air loss: check the seals and the tightness for metal ones and check also for any tears or cracks in rubber seals. If necessary, replace them. When the tyre is being used, always use the valve cover top.

Follow the indications provided on the sidewall of the tyre referring to the rolling direction and the correct positioning of the internal and external sidewalls, if specified.

Use the safety cage when inflating tyres.

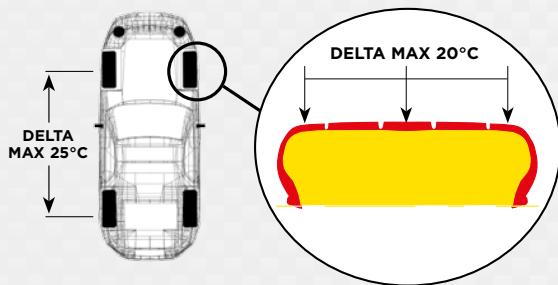
Before unseating the tyre from the rim during disassembly, make sure that the tyre has been fully deflated, removing the inner valve mechanism.

# TECHNICAL INFORMATION

## Rally Tyres

### TREAD TEMPERATURES

Temperatures measured on the tread are an excellent indicator for deciding the best choice of final compound and for optimising corner adjustments of the vehicle, such as camber and toe. We recommend measuring the temperature at three different points: inner (innermost side of the vehicle), centre, outer tread. In particular, average temperatures must be the ones shown in the table, the difference between the values measured internally, in the centre and externally must be maximum 20°, while the difference between the front and rear axles must be no more than 25°. If these values are exceeded, we recommend a different final compound should be used or the vehicle's geometry should be adjusted.



COMPOUND		SURFACE		
	WORKING TEMPERATURE	SOFT/SANDY	PACKED	HARD/ROCKY
Super Soft	K8 10° - 40°			
Soft	K6 20° - 60°			
Soft	KM6 10° - 50°			
Medium	K4 50° - 100°			
Hard	K2 90° - 120°			

GRAVEL

### PRESSURE

Working pressure values depend on the size of the tyre in relation to the load that it is subjected to. In other words, it will vary according to the type of car, the weight and conditions of use. In particular, as the weight of the vehicle, speeds and accelerations that the tyre is subjected to increase, the working pressure must be increased.

In any case, tyres should not be used at pressures below 1.6 bar.

Using excessively low pressures would bring about the breaking of the tyre due to excess force on the sidewall or unseating from the rim. "Hot" working pressures are usually in the range of 2.2 – 2.5 bar.

Initial inflation pressures vary in order to obtain these values, depending on whether the tyres are preheated or used "cold". Indeed, preheated tyres can be inflated to slightly lower values than cold tyres. The difference will depend on the type of heater, the time it remains and the environmental conditions.

CONDITION			TEMPERATURE									PRESSURE	
WET	DAMP	DRY	-5	0	5	10	15	20	25	30	30+	COLD PS START	HOT PS END
												1.8	
												1.8	2.0÷2.4
												2.0	2.0÷2.4
												1.8	2.0÷2.4
												1.8	2.4÷2.5

ASPHALT

CONDITION			TEMPERATURE									PRESSURE	
WET	DAMP	DRY	-5	0	5	10	15	20	25	30	30+	COLD PS START	HOT PS END
												1.9	2.0÷2.2
												1.7	2.2÷2.4
												1.7	2.2÷2.4
												1.9	2.0÷2.2

## Rally Tyres

### TREAD HAND-CUTTING

The tread on some types of tyres can be hand cut to increase the size of the existing grooves. Hand-cutting is useful for improving grip in certain intermediate situations, between dry and thoroughly wet surfaces, or on mixed gravel/rock and sandy surfaces.

The tread efficiency in the conditions for which it was originally designed will no longer be the same. Hand-cutting must be carried out by experts using specialised equipment, suitable for use while observing safety regulations.

### GRAVEL GROOVES

THE COLOURS ARE USED TO HIGHLIGHT WHERE GROOVES CAN BE HAND-CUT



**K**



INSIDE **BASIS** OUTSIDE



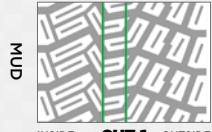
**KM**



INSIDE **BASIS** OUTSIDE



DRY  
INSIDE **CUT 1** OUTSIDE



MUD  
INSIDE **CUT 1** OUTSIDE



WET  
INSIDE **CUT 2** OUTSIDE



MUD  
INSIDE **CUT 3** OUTSIDE

### ASPHALT GROOVES

THE COLOURS ARE USED TO HIGHLIGHT WHERE GROOVES CAN BE HAND-CUT



**RK**



**CUT 1** Humid  
D = 6 mm  
W = 6 mm  
Blade R2



**CUT 2/A** Humid-Wet  
D = 8 mm  
W = 6 mm  
Blade R2



**CUT 3** wet  
D = 6 mm  
W = 6 mm  
Blade R2



**CUT 4** Full Wet  
D = 6 mm  
W = 6 mm  
Blade R2

**CUT 4** Full Wet  
D = 8 mm  
W = 6 mm  
Blade R2

**Blade R2 (U): Width 6 mm Depth 6 mm**  
**Blade W3 (L): Width 8 mm Depth 6 mm**

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