

Tyres for trucks, trailers, coaches and buses



Sava

EUROPEAN QUALITY TIRES

Table of Content

Steer axle tyre range	4
Drive axle tyre range	10
Trailer axle tyre range	16
Tyre segmentation	20
Tyre markings	21
Regrooving recommendations	22



LEGEND



M+S (Mud and Snow) indicates that a tyre has better snow traction than a regular tyre (see details on page 23)



3PMSF (Three Peak Mountain Snow Flake) indicates that a tyre has passed a minimum performance threshold requirement on snow (see details on page 23)

Steer axle tyre range



Sava

EUROPEAN QUALITY TIRES

Avant 5



The new Avant 5 steer axle tyre features latest design technology in combination with robust tread design and casing construction, enabling excellent value for money and high mileage potential. Whilst allowing fleets to make the very most of their tyre assets to substantially reduce their cost per mile.



- Robust 5-rib tread design with solid shoulder ribs for reduced tread wear, improved chip/chunk resistance and high mileage potential
- Curvy groove, sipe layout and a high number of sipes creates additional biting edges for improved traction and braking performance
- High Load capacity for 295/80R22.5 and 315/70R22.5 to support EURO 6 emission standards and electrification trends causing extensive weight on the steer axle and also to make it suitable for the latest vehicle generations

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
295/80 R 22.5	154/149	M	high load	C	C	B 72	(M+S)		
315/80 R 22.5	156/150 (154/150)	L (M)		C	C	B 72	(M+S)		
315/70 R 22.5	156/150	L	high load	C	C	B 72	(M+S)		
295/60 R 22.5	150/147 (149/146)	K (L)		C	C	B72	(M+S)		
315/60 R 22.5	152/148	L		B	C	B 73	(M+S)		
385/65 R 22.5	160 (158)	K (L)		C	C	B 72	(M+S)		
385/55 R 22.5	160 (158)	K (L)		C	C	B 72	(M+S)		

Avant 4 17.5"



The Avant 4 regional steer tyre tread design has three double ribs, which ensure balanced pressure distribution, a low wear rate and an even wear profile, and its high blading density provides good wet braking. The carcass construction gives a lower heat build-up for good durability.



- High wearable rubber volume – improved mileage
- Stiff shoulder ribs – excellent road handling and lateral stability
- Wide bladed zone – high mileage as well as superior traction and braking
- Staggered tread blocks – low noise level
- Stone penetration protectors ensure a high level of durability

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
205/75 R 17.5	124/122	M		D	B	A 70	(M+S)		
215/75 R 17.5	126/124	M		D	C	A 70	(M+S)		
225/75 R 17.5	129/127	M		D	C	A 69	(M+S)		
235/75 R 17.5	132/130	M		D	C	A 69	(M+S)		

Avant A3 19.5"



State-of-the-art tread design, featuring uniform ground pressure across the entire footprint, provides precise steering, excellent grip and a long service life. The rigid and solid shoulder zone ensures reliable lateral stability during abrupt and frequent cornering. All of these features enhance the tyre's economic performance on steered axles.



- High mileage
- High level of durability
- Precise steering and good traction
- Good grip on wet surfaces
- Low noise level

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
245/70 R 19.5	136/134	M		D	C	A 69			
265/70 R 19.5	140/138	M		D	B	A 70			
285/70 R 19.5	146/144 (140/137)	L (M)		D	B	A 70			

Avant A3, Avant A3^{PLUS} 22.5"



The steer tyre, due to its three longitudinal grooves, offers precise steering during abrupt and frequent cornering. Its wide, solid shoulder and enclosed shoulder zone contributes to the vehicle's lateral stability. The diagonal tread block pitch with the optimal distribution of elements of various sizes ensures reliable tyre grip and uniform wear.



- High level of durability
- High lateral stability and resistance against shoulder wear
- Good grip

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
11 R 22.5	148/145	L		D	B	B 71			
12 R 22.5	152/148 (150/148)	L (M)	Avant A3 Plus	C	C	B 73			

Avant MS2, Avant MS2^{PLUS}



The mixed service steer tyres, combines excellent mileage, robust carcass, damage resistant design and materials and good traction. Available in robust 5 ribs (low aspect ratio sizes) and 4 ribs (standard aspect ratio sizes) patterns.



- Wide tread pattern with massive ribs – high mileage and even wear
- Staggered block pattern – improved damage resistance and reduced noise level
- Specific groove geometry – improved traction, enhanced wet skid resistance and prevents stone holding
- Deep shoulder notches – improved off-road traction, tyre cooling and self-cleaning
- Site work on/off road Construction
- All season capabilities

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
12 R 22.5	152/148	K		C	C	A 70			
13 R 22.5	156/150 (154/150)	G (K)		D	B	B 71			
315/80 R 22.5	156/150	K		C	B	B 72			

Comet^{PLUS}



The tyre is designed for use on the steering axles of light trucks and on all axles of buses in regional transport. Its longitudinal grooves connected with cross blades provide precise steering and good traction. It is distinguished for high mileage, steering ease and smooth running.



- Good mileage potential in regional haul applications
- Improved all weather traction
- High lateral stability
- Precise steering and good traction
- Low noise level

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
8.5 R 17.5	121/120	M		D	B	A 69			
9.5 R 17.5	129/127	M		D	B	A 69			



High performance steel radial tyre for municipal buses and extra deep tread for high mileage, reinforced sidewall and fuel-saving tread compound.



- Multi-radius tread shape – uniform distribution of pressure across tyre footprint
- Extra deep tread pattern – high mileage potential with reliable grip through the life of the tyre
- Reinforced sidewalls (>3,5mm thickness) with wear indicators - improved resistance to curb scuffing damage
- Dedicated tread compound – high mileage potential and resistant to abrasion from “stop and go” city driving and cornering
- Stone penetration protectors – help to minimise stone holding
- City U4 tyres are regroovable and retreadable for improved mileage performance (indicated on the sidewall)

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
275/70 R 22.5	148/145 (152/148)	J (E)		D	C	A 70			
295/80 R 22.5	152/148 (154/150)	J (E)		D	B	A 70			



LEGEND



M+S (Mud and Snow) indicates that a tyre has better snow traction than a regular tyre (see details on page 23)



3PMSF (Three Peak Mountain Snow Flake) indicates that a tyre has passed a minimum performance threshold requirement on snow (see details on page 23)

Drive axle tyre range



Sava

EUROPEAN QUALITY TIRES

Orjak 5



The new Orjak 5 drive axle tyre features latest design technology in combination with robust tread design and casing construction, to cope with all kinds of road surfaces and demanding service conditions. It provides high traction levels throughout the full tyre life.



- Robust 5-rib tread design with non-directional tread pattern for even pressure, stress distribution and high mileage potential
- Curvy groove layout and high number of sipes create additional biting edges for improved traction and braking performance
- Semi-open shoulder ribs with stiffeners support water drainage, reduce shoulder wear and improve chip/chunk resistance

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
295/80 R 22.5	152/148	M		D	C	B 74			
315/80 R 22.5	156/150 (154/150)	L (M)		D	C	B 74			
315/70 R 22.5	154/150 (152/148)	L (M)		D	C	B 74			
295/60 R 22.5	150/147 (149/146)	K (L)		D	C	B 74			
315/60 R 22.5	152/148	L		D	B	B 75			

Orjak 4 17.5"



The drive tyre has a specific block type tread pattern for good traction and wet braking. This wide tread has an open tread design to promote traction and a high wearable volume to ensure good mileage. The Orjak 4 also has a carcass construction for reduced heat build-up and therefore good durability.



- High Non-Skid – high mileage, good traction
- 5 ribs of connected solid blocks – even wear, good resistance to chunking and damage plus rear axle stability for better handling
- Optimised block shape, computerise pitching – low impact noise, even wear and good traction
- High net-to-gross, wide tread – high mileage, low noise level and reduced rolling resistance

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
205/75 R 17.5	124/122	M		E	B	A 72			
215/75 R 17.5	126/124	M		E	C	A 70			
225/75 R 17.5	129/127	M		E	C	A 72			
235/75 R 17.5	132/130	M		E	C	A 71			

Orjak 03 19.5"



Its deep transversal grooves ensure reliable tyre road grip even in unsteady driving conditions. Partially full shoulder grooves increase the tyre's lateral stability. Due to block pitching, more gripping edges are in contact with the road at any time, improving the tyre's road grip and extending its service life. Its silent running boosts driving comfort.



- High level of durability
- High lateral stability
- Reliable grip in severe conditions

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
245/70 R 19.5	136/134	M		E	C	B 74			
265/70 R 19.5	140/138	M		E	C	B 74			
285/70 R 19.5	146/144 (140/137)	L (M)		E	C	A 73			

Orjak 03^{PLUS}



Drive axle tyre with excellent traction performance. The arrangement of different size blocks, together with deep cross grooves, increases the number of biting edges to provide optimal engine power transmission and grip even in adverse driving conditions. The semi-open shoulder with connected blocks increases lateral stability and handling. The pitch arrangement reduces tyre wear and rolling noise, providing greater driving comfort and economy.



- Excellent acceleration and breaking performance
- Robust tread design and casing construction
- High lateral stability and service life

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
12 R 22.5	152/148	L		D	C	B 74			

Orjak MS














Orjak MS is a heavy service tyre, constructed with RCS technology, which improves carcass strength and thus enables use in the harshest conditions. Deep cross shoulder grooves provide outstanding grip on off-road areas and buildingsites. The solid central longitudinal rib reduces the possibility of mechanical damage and punctures, and simultaneously improves vehicle handling and stability.



- Varied groove geometry – promotes good self-cleaning
- Solid centerline rib – improved resistance to mechanical damage and high mileage
- Open shoulder blocks – high off-road traction
- Specific tread compound – high mileage potential
- Robust carcass construction – enhanced robustness and damage resistance

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
12 R 22.5	152/148	K		D	B	B 74			
13 R 22.5	156/150 (154/150)	G (K)		D	B	B 76			
315/80 R 22.5	156/150	K		D	B	B 75			

Orjak 24 MS



Orjak 24 MS is a specialised tyre for drive axles on road/-off-road service in difficult roads and climate conditions. Reinforced RCS structure increase resistance to mechanical damage, absorbs sudden strains and thus contributes to improved tyre endurance and life. Robust tread blocks and wide shoulder grooves maintain optimal traction and excellent self cleaning.



- High lateral stability and resistance against shoulder wear
- Good driving parameters
- Groove geometry – excellent self-cleaning to minimise stone holding

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
12.00 R 24	160/156	K		C	B	B 74			

Orjak 24^{PLUS}



The tyre designed for all axes of trucks and trailers. Its authentic construction and robust tread design ensure optimal on- and off-road driving performance. Deep transversal grooves provide reliable grip and lateral stability in severe driving conditions.



- Robust tread design – good mileage in severe service
- Block pattern design promotes traction and wet braking performance
- Deep transversal grooves for reliable grip on various surface conditions
- Durable tread compound – improved damage resistance on off-road terrain

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
12.00 R 24	160/156	K		C	B	A 71			

Tamar^{PLUS}



The tyre is designed for the driving axles of light trucks and buses. Tread blocks of various sizes together with intermediate grooves form numerous gripping edges, providing reliable road grip and excellent traction. The tyre is also distinguished for its increased lateral stability.



- High number of gripping edges for reliable traction
- Improved all weather traction
- High lateral stability
- Good mileage potential in regional haul applications

Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
8.5 R 17.5	121/120	M		E	B	A 71			
9.5 R 17.5	129/127	M		D	C	A 72			



LEGEND



M+S (Mud and Snow) indicates that a tyre has better snow traction than a regular tyre (see details on page 23)



3PMSF (Three Peak Mountain Snow Flake) indicates that a tyre has passed a minimum performance threshold requirement on snow (see details on page 23)



FRT (Free Rolling Tyre) indicates that the tyre should only be fitted to free rolling axles, such as trailer applications (see details on page 23)

Trailer tyre range



Sava

EUROPEAN QUALITY TIRES

Cargo 5



Latest trailer tyre design for a wide range of applications. The CARGO 5 features full 3PMSF marking on all sizes without compromising on other performance criteria.



- Optimised 5-rib tread design (6-rib with 435/50R19.5) – even contact pressure distribution and shoulder robustness result in damage and wear resistance for high mileage and long service life under severe conditions
- Deep sipes down to 2/3 of the full tread depth – 3PMSF marking and compliance with most restrictive winter legislations; short braking distances and improved wet grip throughout tyre life
- Cool running/high abrasion resistant tread compound – good rolling resistance combined with excellent resistance against treadwear and lateral scrubbing. High mileage and fuel efficiency



Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
435/50 R 19.5	160	J		B	B	B 72			
385/65 R 22.5	164 (158)	K (L)	High Load	C	B	B 72			
385/55 R 22.5	160 (158)	K (L)		B	B	B 72			

Cargo 4 17.5" & 19.5"



The trailer tyre with a wide application range for all types of trailer including low platform versions. It has an optimised tread pattern with grouped center ribs, which provides high mileage, good vehicle stability and low rolling resistance for fuel economy. The new carcass construction, as with the other new Sava tyres, means less heat build-up for better durability.



- Optimised mold cavity – even wear due to optimum contact pressure distribution
- Optimised tread pattern with grouped center ribs supporting each other – high mileage, improved vehicle stability, low rolling resistance
- Deep tread blades at center area – reduce heel and toe wear and provide good wet performance
- Rib edge sipping – river wear elimination
- Optimised groove geometry – reduce stone holding for greater durability



Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
215/75 R 17.5	135/133	J		C	C	A 68			
235/75 R 17.5	143/141	J		C	C	A 70			
245/70 R 19.5	141/140	J		C	C	A 71			
265/70 R 19.5	143/141	J		C	C	A 70			

Cargo MS



Cargo MS is a tyre intended for adverse driving conditions for offroad and buildingsite use. It is constructed on the basis of RCS technology and features improved mechanical damage resistance and carcass strength. The use of a special compound prevents the tread elements from flaking or tearing. Reinforced carcass structure improves tyre durability and life.



- Centreline block configuration – good grip and braking on wet and unpaved roads
- Solid shoulder ribs – improved damage resistance
- Special tread compound – prevents tread flaking or tearing
- Reinforced carcass construction – better durability for extended tyre life



Technical data

Size	Load Index	Speed Symbol	Comments				M+S	3PMSF	Ice Grip
385/65 R 22.5	160	K		C	B	B 72			

Tyre segmentation

Application Map

	ON ROAD	MIXED SERVICE/ OFFROAD	URBAN
STEER	Avant 5 Avant 4 17.5" Avant A3 19.5" Avant A3 ^{PLUS} 22.5" Comet ^{PLUS}	Avant MS2 ^{PLUS} Avant MS2	City U4
DRIVE	Orjak 5 Orjak 4 17.5" Orjak O3 19.5" Orjak O3 ^{PLUS} Tamar ^{PLUS}	Orjak MS Orjak 24 ^{PLUS} Orjak 24MS	
TRAILER	Cargo 5 Cargo 4 17.5"/19.5"	Cargo MS	

Tyre markings

M+S (also M.S. or M&S) has been the widely used marking on winter tyres, stipulated in EU legislation.¹

3PMSF – On 1 November 2012 Regulation 117 made a new marking official in the EU – the “Alpine” symbol, or the three-peak-mountain with snow flake (“3PMSF”). Unlike the M+S marking, the 3PMSF can only be legally used if the tyre passes a minimum performance threshold requirement on snow, the so called “snow grip index”.

However, M+S remains as a permitted marking, but not legally linked to a minimum guaranteed performance in winter conditions. M+S tyres have better snow traction than regular tyres but do not necessarily pass the snow grip threshold legal requirement to qualify for the new three-peak snow flake identification.

ICE TYRE – tyre designated as “ice” tyre, using ISO standards for C1 tyres. No standards defined yet for C2 and C3 tyres.

FRT – stands for “Free Rolling Tyre” and is a legal marking according to the UNECE Regulation No. 54, which indicates that the tyre is specifically designed and intended for the equipment of trailer axles and axles of motor vehicles other than front steering and all drive axles.

Therefore these trailer tyres marked “FRT” should be used exclusively on trailer axles and axles of motor vehicles other than front steering and all drive axles and should not be fitted in any other position.

Goodyear will not warrant and cannot be held accountable for any potential liability claim involving FRT tyres fitted outside these recommendations.



Size definitions

Listed below are the size designations that are being used on truck tyres. With each size is an explanation of what each component describes:

12	/		R	22.5	151/148	L
Section width in inches			R-radial	Rim diameter in inches	Load index (single/dual mounted)	Speed symbol
295	/	80	R	22.5	152/148	M
Section width in mm		Aspect ratio	R-radial	Rim diameter in inches	Load index (single/dual mounted)	Speed symbol
385	/	65	R	22.5	160	K
Section width in mm		Aspect ratio	R-radial	Rim diameter in inches	Load index (single mounted)	Speed symbol

Load index

load index	kg	load index	kg	load index	kg
120	1400	137	2300	154	3750
121	1450	138	2360	155	3875
122	1500	139	2430	156	4000
123	1550	140	2500	157	4125
124	1600	141	2575	158	4250
125	1650	142	2650	159	4375
126	1700	143	2725	160	4500
127	1750	144	2800	161	4625
128	1800	145	2900	162	4750
129	1850	146	3000	163	4875
130	1900	147	3075	164	5000
131	1950	148	3150	165	5150
132	2000	149	3250	166	5300
133	2060	150	3350	167	5450
134	2120	151	3450	168	5600
135	2180	152	3550	169	5800
136	2240	153	3650	170	6000

Speed symbol

speed symbol	maximum permitted speed (km/h)	speed symbol	maximum permitted speed (km/h)
E	70	K	110
F	80	L	120
G	90	M	130
J	100	N	140

¹ Council Directive 92/23/EEC of 31 March 1992 relating to tyres for motor vehicles and their trailers and to their fitting.

Regrooving recommendations

Depending on conditions of use and maintenance, Sava truck tyre casings can give each tyre a minimum of four lives (new, regrooved, retreaded, regrooved) while ensuring performance and minimising operating costs. All Sava truck tyres are designed to allow regrooving and thus increase the mileage potential and consequently improve cost efficiency.

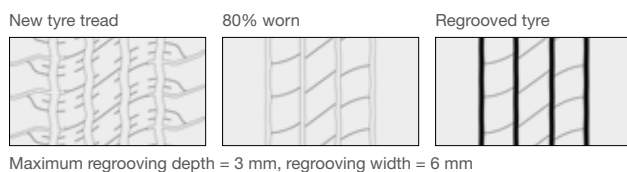
The regrooving of truck tyres should be entrusted solely to fully trained operators. Only proven regrooving tools with electrically heated blades should be used.

A minimum of remaining undertread rubber is essential to avoid damage at the top breaker belt, groove cracking and/or stone damage.

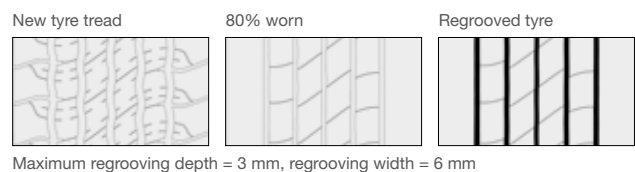
Regroove Sava truck tyres when there is still sufficient tread depth. Suggested remaining tread depths are: 3-4mm for regular highway use; 5-6mm in operating conditions where penetration damage is likely.

Tyres for steer axles

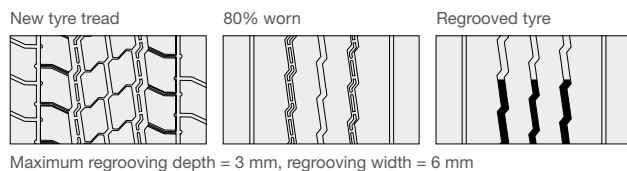
Avant 5 (5-rib design)



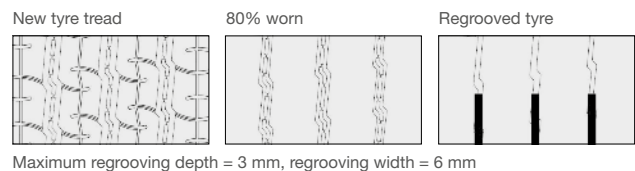
Avant 5 (6-rib design)



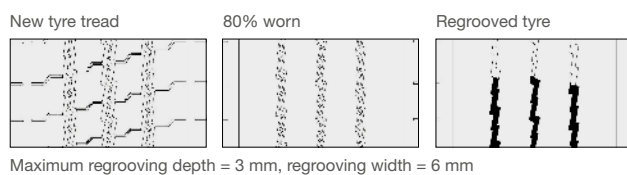
Avant 4 17.5"



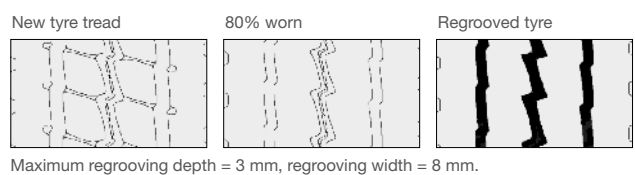
Avant A3 19.5"



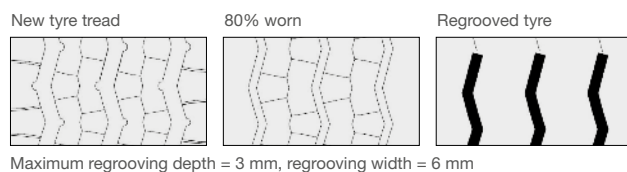
Avant 3, Avant 3^{PLUS} 22.5"



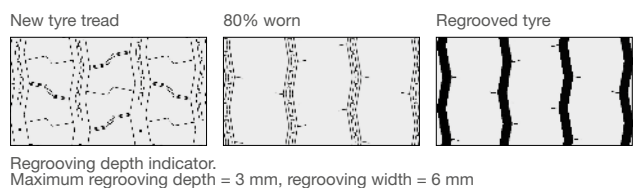
Avant MS2^{PLUS}



Comet^{PLUS}



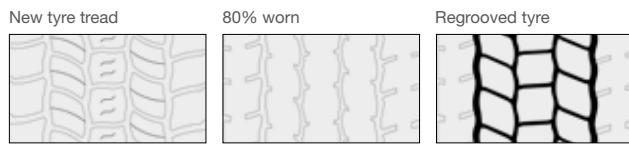
City U4



Regrooving recommendations

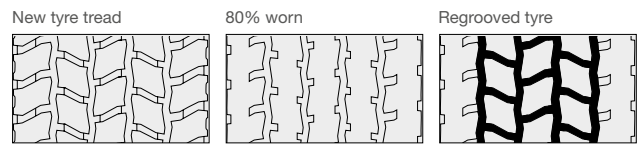
Tyres for drive axles

Orjak 5



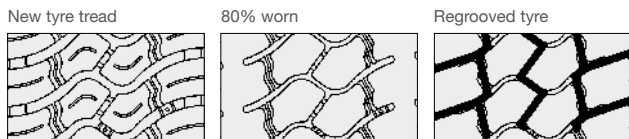
Maximum regrooving depth = 3 mm, regrooving width = 6 mm.

Orjak 4 17.5"



Maximum regrooving depth = 3 mm, regrooving width = 8 mm.

Orjak O3 19.5"



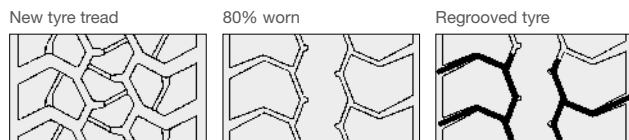
Regrooving depth indicator.
Maximum regrooving depth = 3 mm, regrooving width = 6-8 mm.

Orjak O3^{PLUS}



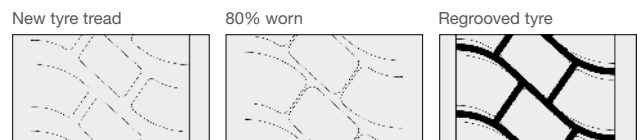
Regrooving depth indicator.
Maximum regrooving depth = 3 mm, regrooving width = 6-8 mm.

Orjak MS



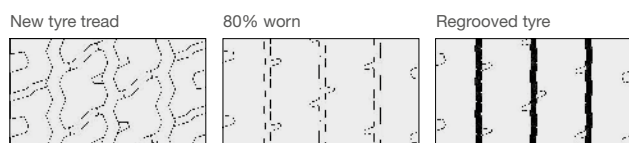
Regrooving depth indicator.
Maximum regrooving depth = 3 mm, regrooving width = 8-10 mm.

Orjak 24 MS



Maximum regrooving depth = 3 mm, regrooving width = 10 mm.

Orjak 24^{PLUS}



Maximum regrooving depth = 3 mm, regrooving width = 8 mm.

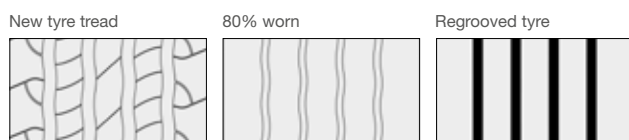
Tamar^{PLUS}



Maximum regrooving depth = 3 mm, regrooving width = 6 mm.

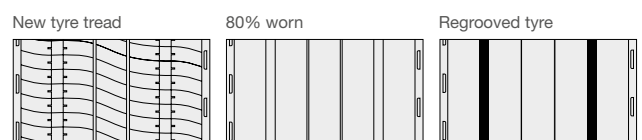
Tyres for trailers / semitrailers

Cargo 5



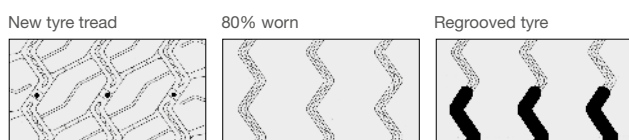
Maximum regrooving depth = 3 mm, regrooving width = 8 mm.

Cargo 4 17.5" & 19.5"



Maximum regrooving depth = 3 mm, regrooving width = 6 mm.

Cargo MS



Regrooving depth indicator.
Maximum regrooving depth = 3 mm, regrooving width = 8 mm.

Goodyear Operations S.A.

Av. Gordon Smith
L-7750 Colmar-Berg

Telephone

(352) 8199-1

Telefax

(352) 8199 2175

www.sava-tires.com

0523/ENG

www.sava-tires.com

