Cordiant PROFESSIONAL 1.5

RELIABLE TECHNOLOGY FOR EFFICIENT LOGISTICS

PROFESSIONAL TYRES FOR TRUCKS AND BUSES

JSC CORDIANT MANUFACTURES MORE THAN 300 MODELS AND SIZES OF TYRES. THE MAIN BRANDS ARE “CORDIANT” (PCR AND LTR TYRES), “CORDIANT PROFESSIONAL” (TBR TYRES), “TYREX ALL STEEL” (TBR TYRES).

JSC CORDIANT WAS THE FIRST RUSSIAN COMPANY TO LAUNCH THE PRODUCTION OF A COMPREHENSIVE PRODUCT LINE OF ALL-STEEL TBR TYRES.

THE IN-HOUSE R&D CENTER “INTYRE” APPLIES THE MOST INNOVATIVE AND ADVANCED TECHNOLOGIES TO CREATE, ENGINEER AND TEST TYRES. THIS IS FOLLOWED BY THE SUCCESSFUL LAUNCH OF LARGE-SCALE PRODUCTION IN MODERN PRODUCTION FACILITIES.

WITH ITS RANGE OF QUALITY PRODUCTS, JSC CORDIANT SUPPLIES OEM TYRES TO MAJOR RUSSIAN AND INTERNATIONAL MANUFACTURERS OF CARS, TRUCKS, BUSES AND TROLLEYBUSES.

ISO 9001, ISO/TS 16949, ISO 14001 CERTIFICATION CONFIRMS HIGH STANDARDS OF ENVIRONMENTAL MANAGEMENT AND SOUND BUSINESS PROCESSES WITHIN THE COMPANY. COMPLIANCE WITH THE REGULATIONS ESTABLISHED BY THE UN ECONOMIC COMMISSION FOR EUROPE № 30, 54, 117 ENSURES THE HIGH QUALITY OF ALL PRODUCTS AND CONSISTENT TECHNICAL CHARACTERISTICS .

THE COMPANY EXPORTS ITS PRODUCTS TO MORE THAN 30 COUNTRIES LOCATED IN EUROPE, LATIN AMERICA, RUSSIA, CIS COUNTRIES, MIDDLE EAST.

Cordiant PROFESSIONAL
RELIABLE TECHNOLOGY FOR EFFICIENT LOGISTICS

1932

Yaroslavl Tyre Plant was founded.

The first tyre manufacturer in the USSR.

The largest tyre plant in Europe

1936

Start of tyre production for the first trolleybuses in the USSR

1940

Omsk Tyre Plant was founded

1941-1945

During the Second World War, the plant manufactured tyres for military aviation, artillery and military motor vehicles. Over these years, Yaroslavl Tyre Plant produced a volume of products sufficient for 3200 artillery and 1400 aviation regiments

1960-1965

In the 1960s Omsk truck tyres with metal cord exceeded the mileage of 100,000 km (75,000 km was the record of Continental Company at those times)

1961

The enterprise manufactured tyres for the first Soviet limousine GAZ "M-1" – an automobile for government officials

2006-2008

The holding company SIBUR – Russian Tyres, was founded.

Consolidation of tyre plants including:
Yaroslavl Tyre Plant JSC,Omskshina JSC, Voltyre-Prom JSC,Uralshina LLC, Matador-Omskshina JV (a Russian-Slovak enterprise founded in 1995 with shares of 50%/50%)

2006

The first Russian truck AMC tyres under Tyrex All Steel brand name, a plant with capacity of 350,000 pc. per year

2007

A joint venture was created with Continental, a German corporate group, within the framework of cooperation in the development of Matador-Omskshina JV

2009

Intyre, R&D center, was founded - innovative engineering in the development of passenger car and truck tyres

2011

Cordiant-Vostok JSC was founded on the basis of Matador-Omskshina JV to increase the capacity of Cordiant tyres production

2011

Cordiant won "Brand of the year"/EFFIE 2011 in AUTO-MOTO category (confirmation of customers' confidence in the quality)

2012

The joint-stock company Cordiant was founded.

Cordiant

The company focuses on the production of truck, light truck and passenger car tyres at 3 plants: Yaroslavl Tyre Plant JSC, Omskshina OJSC and Cordiant-Vostok JSC

2011

Continental Company sold its share in Matador-Omskshina JV – production of the next-generation passenger car and light truck tyres

2013

New production facility opened for truck all-steel TBR tyres. Capacity: 650,000 pcs. per year. One of the most modern production lines in Europe

2014

A new line of truck tyres – Cordiant Professional.

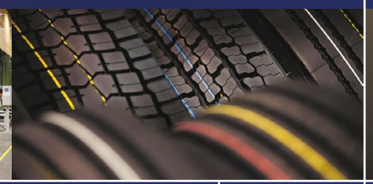
Cordiant PROFESSIONAL 1.6

The range of sizes and quality of tyres are comparable with the premium brands.

1930 | 1940 | 1960 | 2000 | 2010








JSC Cordiant – a leading tyre manufacturer in Eastern Europe with production plants in Yaroslavl (Yaroslavl Tyre Plant) and Omsk (Omskshina OJSC and Cordiant-Vostok JSC), Vershina Tyre Test Center and Intyre R&D Center.

Cordiant JSC annual sales reach total of 1 bln. US dollar.

Sales regions. The holding exports its products to more than 30 countries. Cordiant delivers its tyres to Europe, Latin America, the Russian Federation, the CIS countries.

ISO 9001, ISO/TS 16949, ISO 14001 certification confirms high standards of environmental management and stable quality systems of company.
Compliance with the regulations established by the UN Economic Commission for Europe № 30, 54, 117 ensures the high quality of all products and consistent technical characteristics.

Thanks to a large-scale investment program, the **production capacities** of the holding are comparable with the leading European producers in terms of equipment and production volumes.

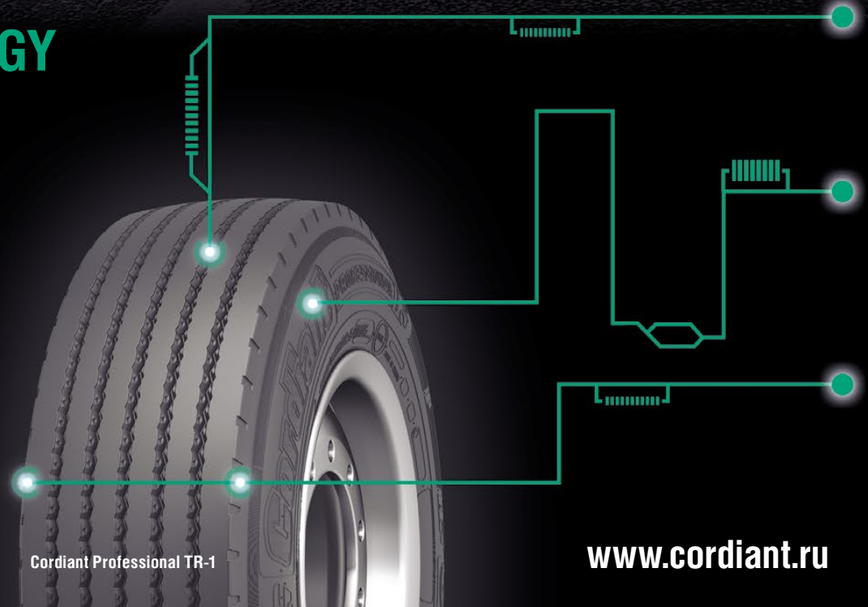
SMART-ENDURANCE INCREASES MILEAGE

Cordiant PROFESSIONAL TR-1

RELIABLE TECHNOLOGY FOR EFFICIENT LOGISTICS

Long-distance cargo transportation demands tyre mileage and safety. SMART-ENDURANCE technology extends tyre life due to higher durability of tread, safe carcass and possibility of multiple regrooving and recapping.

SMART-ENDURANCE TECHNOLOGY SIGNIFICANTLY INCREASES TYRE MILEAGE



Longer Tyre Life

A special SMART-ENDURANCE rubber compound with active carbon-polymer interaction centers strengthens bonds between rubber and carbon black and improves tyre durability.

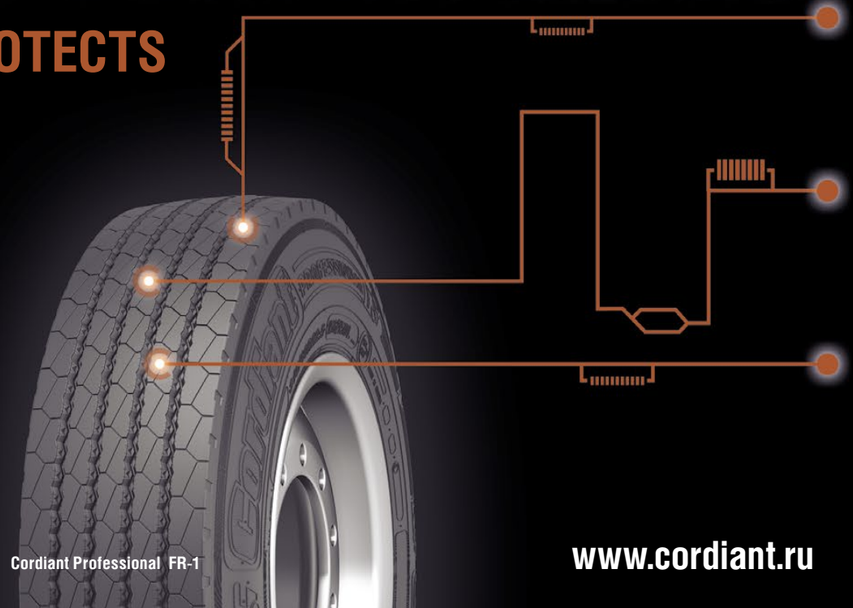
Safe Carcass allows tyre retreading

The tyre carcass forms the fundament of a tyre. A new generation of tyre carcasses Cordiant Professional allows to prolongs tyre life repeatedly due to a unique tyre profile in combination with highstrength metal cord type: first by deepening the tyre tread regrooving and then by recapping. So, the tyre mileage increases significantly.

Effectiveness Guaranteed

A new formulation of breaker compound reduces heat production and ensures reliable connection between the rubber and breaker metal cord. Reliable structure of the breaker strip enhances protection of the tyre carcass and significantly improves tyre durability.

STONE-SHIELD TECHNOLOGY PROTECTS TREAD PATTERN FROM STONES



Roads are not perfect everywhere. This is why tyres need to be resistant to damage. The innovative STONE-SHIELD technology was developed specially for treacherous driving conditions. It protects tread patterns from stones and prevents damage to breaker layers.

Confidence on Different Types of Roads

A special sequence of unique three-dimensional stone extruders in tyre grooves protects the tyre and breaker layers effectively. The tread does not grip stones from dirt roads and irregular terrain, keeping the upper layers of the breaker undamaged.

Maximum Tyre Protection

Poorly maintained roads demand a new approach to tyre development. Only Cordiant Professional line has special STONE-SHIELD extruders in all tyres: steering, driving and trailer ones. This option is unique, even among premium tyres.

Effective Tread Self-Cleaning

Self-cleaning improvements due to the difference of deformation between tread blocks and cone-shaped protuberances at the bottom of the tread groove when the tyre is running. The tread does not grip stones and cleanses itself from mud, which improves traction.

STEEL-DEFENCE STRENGTHENS BEAD

Effective business needs high efficiency, and tyres are often exposed to overloads. STEEL-DEFENCE technology strengthens the tyre bead, making reliable and safe transportation possible. The combination of reliable bead structure and excellent tyre adhesion allows transportation companies to fulfill profitable contracts and transport cargo over any distance.

STEEL-DEFENCE TECHNOLOGY ALLOWS CARRYING HEAVY LOADS

Strengthened Bead

An enhanced U-scheme of bead with STEEL-DEFENCE technology. A high-tensile chafer strip with metal cord strengthens the bead zone and increases the safety in complicated conditions.

Better Tyre Durability

A new optimized tyre section fits the purpose of every tyre. It minimizes tyre deformation in traffic, lessens overheating under pressure and ensures a great strength margin of the carcass. You can use these tyres on any type of road without having to worry about the structural integrity.

Reliability in Fitting and Use

A bead ring with a hexagonal shape provides a perfect fit, ensuring a hermetic seal of the whole structure during operation.

ADVANCED MANUFACTURING TECHNOLOGIES

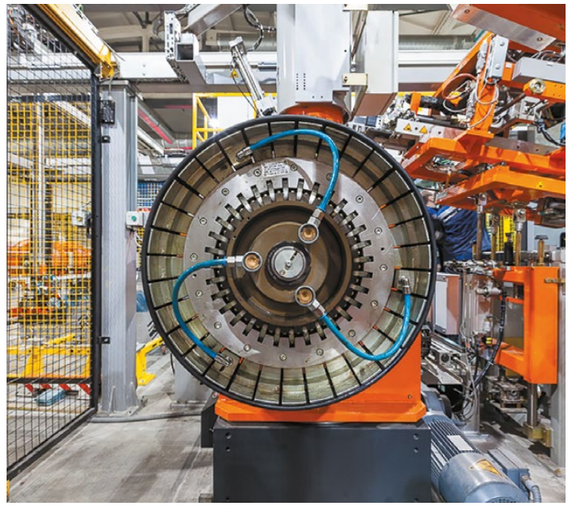
Modern European equipment was installed at the Yaroslavl Tyre Plant for the production of Cordiant Professional tyres. This ensures a high level of automation and excellent quality of new tyres.

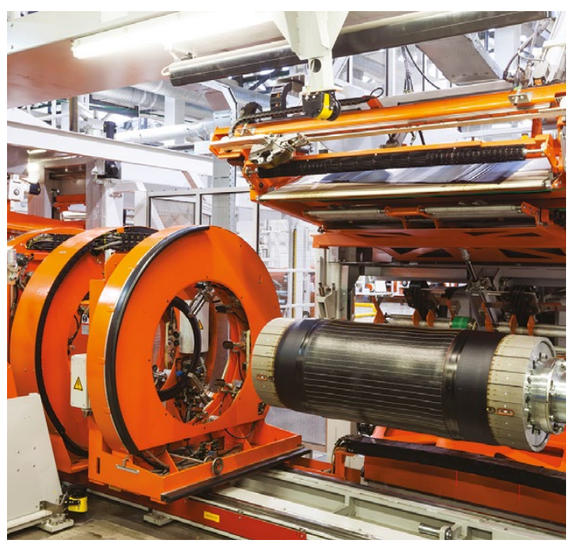
FARRELL, a new rubber mixing system, delivers highly homogeneous rubber compounds, which increases tyre mileage.

A new assembly line from VMI, a Dutch manufacturer, is fully automated. As a result, higher quality tyres can be assembled almost without human involvement.

The tyres are cured on German HERBERT hydraulic presses with automatic loading. Special attention is given to product quality assurance.

All tyres undergo X-ray control in an YXLON system, as well as an automatic check on the homogeneity control line. In addition, tyres are inspected visually for external surface defects. They are also checked for airtightness and static imbalance. Cordiant Professional tyres undergo 100% quality control.





CORDIANT PROFESSIONAL TYRES ARE TESTED BY LEADING INTERNATIONAL INDEPENDENT EXPERTS

Global independent test centers: Automobil Test DEKRA (France), Applus IDIADA (Spain), DUK Test (Slovakia), VERSHINA TYRE TEST CENTER (Russia) carried out complex of tests with Cordiant Professional tyres on different rim seat diameters: 17.5, 19.5 and 22.5. Uninterrupted 24-hour tests of truck tyres on MAN trailers with fully loaded Schmitz-Cargobull and Verem semitrailers lasted for several months and confirmed high mileage comparable to the European competitors.

As a result of testing (to conform the EU Directive 1222/2009) driving and trailing Cordiant Professional tyres scored mark B for braking on wet roads. This score is higher than lead competitors, according to the European labelling systems. Thus, if you use Cordiant Professional tyres in rainy weather, the brake path of the vehicle will be much shorter and transportation will be safer.

DEKRA AUTOMOBILE TEST (FRANCE)

DEKRA labs tested truck tyres Cordiant Professional in the Automobil Test DEKRA center located in Mireval (France) in 2014. The tests were held on Iveco Stralis kogel trailers with maximum loadings.

Trailers were equipped with 385/65R22.5 TR-2 that have 4 grooves. These tyres were designed for cost effective cargo transportation. The results of the tests showed even wearing of the tread on steering, driving and trailer type of tyres with maximum loaded trailers. The mileage of Cordiant Professional tyres in difficult conditions is comparable with leading world brands of tires.

DUK TEST (SLOVAKIA)

DUK TEST was founded in 1990 in Puchov, Slovakia, and is an expert organization in testing automobiles and automotive components. DUK TEST tests tyres from various producers for tyre life and performance results.

In 2013-2014, DUK TEST carried out a cycle of tests with Cordiant Professional tyres with different rim seat diameters: 17.5, 19.5 and 22.5. Uninterrupted 24-hour tests of truck tyres on MAN trucks with fully loaded Schmitz-Cargobull and Verem semitrailers that lasted for several months, confirmed high mileage comparable to the European competition. Besides, tread appearance and wear were not criticized during the tests. All drivers reported excellent tyre grip on wet roads. The tyres can handle any weather condition.

IDIADA TEST (SPAIN)

The history of IDIADA started in 1971 in the Higher Engineering School of Catalonia. Nowadays the Spanish company Applus IDIADA is a major independent European company in the sphere of engineering, technologies, tests and certification (homologation) of vehicles.

In 2012-2013, certification tests of Cordiant Professional tyres were carried out in the IDIADA Test Center according to the European Union Directive 1222/2009. Steering, driving and trailing Cordiant Professional tyres scored B for braking on wet roads. This score is on par with premium brands, according to the European labelling systems. Thus, if you use Cordiant Professional tyres in rainy weather, the brake path of the vehicle will be much shorter and transportation will be safer.

VERSHINA TYRE TEST CENTER (RUSSIA)

The Vershina Tyre Test Center was founded in 2005. It has its own tyre test site. This is the only Russian company that has the right to carry out certification tests of tyres in full according to the Regulations of the Economic Commission for Europe No. 117 (international requirements for tyre products).

In 2014, Vershina tested Cordiant Professional bus tyres under the maximum load (17.9 tons) and speed on urban and regional roads. The results showed that Cordiant Professional tyres had 12% less tread wear than their European competition. In drivers' opinion, Cordiant Professional tyres with tread protection from stones provided excellent tread self-cleaning and tractive properties in comparison with tyres of the competition.

APPLICATION TABLE FOR CORDIANT PROFESSIONAL TYRES

Cordiant PROFESSIONAL
RELIABLE TECHNOLOGY FOR EFFICIENT LOGISTICS

	LONG DISTANCE	REGIONAL TRAFFIC	COACH/BUS	MIXED SERVICE	MIXED SERVICE AND OFF ROAD
					
STEER	FL-1 FL-2 	FR-1 	VC-1 VR-1 	VM-1 	VM-1 
DRIVE	DL-1 DL-2 	DR-1 	VC-1 VR-1 	VM-1 	DM-1 
TRAILER	TR-2 	TR-1 		TM-1 	TM-1 

Cordiant PROFESSIONAL TG
RELIABLE TECHNOLOGY FOR EFFICIENT LOGISTICS

RIM DIAMETER	TYRE SIZE	FL-1	FL-2	FR-1	DL-1	DL-2	DR-1	TR-1	TR-2	VC-1	VR-1	VM-1	DM-1	TM-1
22.5	385/65R22.5			158L (160K)				160K (158L)	160K (158L)					160K
	385/55R22.5		160K (158L)					160K (158L)						
	315/80R22.5			156/150L (154/150M)			156/150L (154/150M)					156/150K	156/150K	
	315/70R22.5		154/150L (152/148M)	154/150L (152/148M)		154/150L (152/148M)	154/150L (152/148M)							
	315/60R22.5	152/148L			152/148K									
	295/80R22.5			152/148M			152/148M							
	295/75R22.5						149/146L							
	295/60R22.5	150/147L			150/147K									
	275/70R22.5									148/145J (152/148E)				
	13R22.5											154/150K (156/150G)	154/150K (156/150G)	
	12R22.5											148/145K	152/148K	
	11R22.5												148/145K	
19.5	285/70R19.5			145/143M										
	265/70R19.5							143/141J						
	245/70R19.5			136/134M			136/134M				136/134K			
17.5	245/70R17.5								143/141J					
	235/75R17.5			132/130M			132/130M	143/141J						
	225/75R17.5						129/127M							
	215/75R17.5			126/124M			126/124M	135/133J						
	205/75R17.5						124/122M							

FL-1 TYRES FOR STEERING AXLE, LONG DISTANCE

APPLICATION:

- Long distance
- For steering axle

ADVANTAGES:

- Long tyre life and fuel efficiency due to a new tread pattern developed for long-distance transportation without frequent acceleration and braking.
- A special round belt with an unique geometrical form in the bottom of the shoulder grooves increases the contact spot in the shoulder zone, protecting the tyre from uneven wear when the tread is worn out by 1/3 or more.
- Central 3D-shaped grooves protect breaker layers from stones and remove foreign objects from tyre grooves effectively.
- A new formulation of tread rubber compound for long-haul tyres gives optimal tyre rolling resistance.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/60R22,5	152/148	120 (L)
295/60R22,5	150/147	120 (L)

FL-2 TYRES FOR STEERING AXLE, LONG DISTANCE

APPLICATION:

- Long distance
- For steering axle

ADVANTAGES:

- New modern tread patterns of long distance tyres.
- Steering tyres have a advanced level of fuel efficiency - class C under EU ecolabelling rules (EU Directive 1222/2009). It means high economic efficiency during the usage of these tyres.
- A special round belt with a unique geometrical form in the bottom of the shoulder grooves increases the contact patch in the shoulder zone, protecting the tyre from uneven wear when the tread is worn out by 30% or more.
- The STONE-SHIELD technology provides a high level of cargo transportation safety through the use of a unique 3D geometry of tread grooves - large stones and dirt pieces are not captured, while small stones are ejected from the tyre tread grooves to ensure reliable operation and tyre integrity.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/70R22,5	154/150 (152/148)	120 (L), 130 (M)
385/55R22,5	160 (158)	110 (K), 120 (L)

DL-1 TYRES FOR DRIVING AXLE, LONG DISTANCE

APPLICATION:

- Long distance
- For driving axle

ADVANTAGES:

- Long tyre life and fuel efficiency of tyres due to a new tread pattern developed for long-distance transportation without frequent acceleration and braking.
- The tread pattern of the driving tyre consists of six lines separated by grooves. The lines and lamellas feature a special zigzag form to provide for good road grip.
- STONE-SHIELD technology – special pyramidal cuts on each tread unit – creates 3D-geometry of grooves to protect them from stone penetration.
- A new formula of tread rubber compound for long distance tyres gives optimal tyre rolling resistance.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/60R22,5	152/148	110 (K)
295/60R22,5	150/147	110 (K)

DL-2 TYRES FOR DRIVING AXLE, LONG DISTANCE

APPLICATION:

- Long distance
- For driving axle

ADVANTAGES:

- Tyre for driving axle provides improved fuel economy because of the new composition of the rubber compound and special tread pattern developed for the long haul.
- A special system of longitudinal grooves that have a zig-zag shape and a transverse sipes, and grooves in the shoulder ribs provides increased traction with the road surface and excellent braking characteristics.
- Stone Ejector elements STONE-SHIELD technology at the base of the tread grooves reduce stone sticking and increases the resistance to aggressive conditions.
- The STEEL-DEFENCE technology reinforces the tyre through the use of special U-shaped structure of bead zone and rim wire made of high-tensile steel, thereby increasing tyre reliability in difficult conditions.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/70R22,5	154/150 (152/148)	120 (L), 130 (M)

TR-2 TYRES FOR TRAILERS AND SEMITRAILERS, LONG-DISTANCE AND REGIONAL TRAFFIC

APPLICATION:

- Long distance and regional traffic
- For trailers and semitrailers

ADVANTAGES:

- Cordiant Professional TR-2 tyre is notable for a higher tread pattern depth – up to 17.5 mm and, consequently, longer tyre life.
- A new tyre section increases the contact spot and provides even tread wear.
- Wider hard shoulder zones without additional sipes can carry high lateral load on trailer axles.
- A special 3D-geometry of tread grooves with STONE- SHIELD technology protects from stone penetration and prolongs tyre life.

TYRE SIZE	LOAD INDEX	SPEED INDEX
385/65R22,5	160 (158)	110 (K), 120 (L)
245/70R17,5	143/141	100 (J)

TR-1 TYRES FOR TRAILERS AND SEMITRAILERS, LONG DISTANCE AND REGIONAL TRAFFIC

APPLICATION:

- Long distance and regional traffic
- For trailers and semitrailers

ADVANTAGES:

- A new SMART- ENDURANCE rubber compound increases tear resistance, reduces tread wear and prolongs tyre life.
- Maximum protection from stones and confidence on gravel roads with STONE- SHIELD technology. Special 3D stone extruders in tread grooves remove foreign objects effectively, protect tyres better and reduce the risk of damage to breaker layers.
- STEEL- DEFENCE strengthened U-scheme of bead structure reduces tension in bead ring zone, making balancing and rim fitting easier.
- A special rim strip with metal cord strengthens the bead zone and increases reliability in difficult conditions.
- Tread pattern with hard and reliable shoulder zones without additional sipes help carry high lateral load on trailer axle.

TYRE SIZE	LOAD INDEX	SPEED INDEX
385/65R22,5	160(158)	110 (K), 120 (L)
385/55R22.5	160(158)	110(K), 120(L)
265/70R19,5	143/141	100 (J)
235/75R17,5	143/141	100 (J)
215/75R17,5	135/133	100 (J)

FR-1 TYRES FOR STEERING AXLE, REGIONAL TRAFFIC

APPLICATION:

- Regional traffic
- For steering axle

ADVANTAGES:

- The special tread pattern of the steering tyre improves roadability and provides effective braking on a wet road. According to test results obtained in the International Independent Certification Center, Cordiant Professional steering tyres scored B for braking on a wet road according to European Union Directive 1222/2009 on European labelling.
- Maximum protection from stones and confidence on gravel roads with STONE- SHIELD technology. Special 3D stone extruders in tread grooves remove foreign objects effectively, protect tyres better and reduce the risk of damage to breaker layers.
- Longer tyre life because of the new SMART- ENDURANCE rubber compound. Higher durability and wear resistance because of increased quantity of active carbon-polymer interaction centers in SMART-ENDURANCE compound.

TYRE SIZE	LOAD INDEX	SPEED INDEX
385/65R22.5	158 (160)	120 (L), 110 (K)
315/80R22,5	156/150 (154/150)	120 (L), 130 (M)
315/70R22,5	154/150 (152/148)	120 (L), 130 (M)
295/80R22,5	152/148	130 (M)
285/70R19,5	145/143	130 (M)
245/70R19.5	136/134	130 (M)
235/75R17.5	132/130	130 (M)
215/75R17.5	126/124	130 (M)

DR-1 TYRES FOR DRIVING AXLE, REGIONAL TRAFFIC

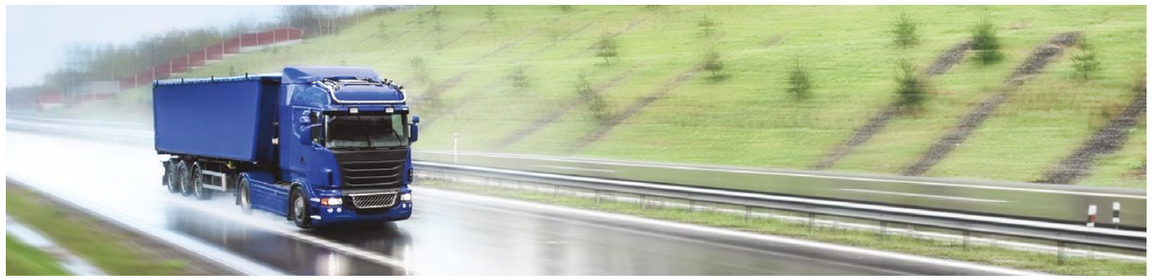
APPLICATION:

- Regional traffic
- For driving axle

ADVANTAGES:

- Unique STONE-SHIELD protection from stones. A special stone extruding belt in central grooves protects from penetration of stones and reduces the risk of tread damage.
- A tread pattern with knife cuts provides a larger contact spot and improves braking and tractive effort on wet and dry surface.
- A special SMART-ENDURANCE rubber compound with active carbon-polymer interaction centers strengthens connections between soot and rubber and provides improved tread durability. So, when use guidelines are followed, tyre life increases significantly.
- A STEEL-DEFENCE bead with strengthened U-scheme. A special rim strip with metal cord strengthens bead zone and improves safety in complicated conditions.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/80R22,5	156/150 (154/150)	120 (L), 130 (M)
315/70R22,5	154/150 (152/148)	120 (L), 130 (M)
295/80R22,5	152/148	130 (M)
295/75R22,5	149/146	120 (L)
245/70R19,5	136/134	130 (M)
235/75R17.5	132/130	130 (M)
225/75R17.5	129/127	130 (M)
215/75R17.5	126/124	130 (M)
205/75R17.5	124/122	130 (M)



VM-1 TYRES FOR STEERING AND DRIVING AXLE, CONSTRUCTION SITES AND COMMUNAL SERVICES

APPLICATION:

- For construction and communal services transport
- For steering and driving axle

ADVANTAGES:

- A special universal tread pattern. Can be installed on steering and driving axles. Provides economic efficiency when used on construction sites.
- A new SMART-ENDURANCE rubber blend increases resistance to abrasion wear (cuts, punctures, block separation, etc.) and decreases tread wear.
- Strengthened U-scheme tyre bead under STEEL-FORCE technology. A special rim strip with metal cord strengthens bead zone and increases the safety in complicated conditions.
- A technology of bead ring wound of separate wire - Winding ring bead – reduces tension in bead zone, makes balancing and rim fitting easier. A reliable bead ring with hard rim fitting provides hermeticity.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/80R22,5	156/150	110(K)
13R22.5	154/150	K (110), G (90)
11R22.5	148/145	110(K)

DM-1 TYRES FOR DRIVING AXLE, CONSTRUCTION SITES AND OFF – ROAD

APPLICATION:

- For construction sites and off-road
- For driving axle

ADVANTAGES:

- A special aggressive tread pattern for harsh conditions with STONESHIELD protection from stones provides economic efficiency when used in construction sites and off-road.
- A new SMART-ENDURANCE rubber blend increases resistance to abrasion wear (cuts, punctures, block separation, etc.) and decreases tread wear.
- Strengthened U-scheme tyre bead with STEEL-FORCE technology. A high-tensile rim strip with metal cord strengthens bead zone and increases the safety in complicated conditions.
- Technology using bead ring wound of separate wire - winding ring bead – reduces tension in bead zone and makes balancing and rim fitting easier. A reliable bead ring with good rim fitting provides airtightness.

TYRE SIZE	LOAD INDEX	SPEED INDEX
315/80R22,5	156/150	110 (K)
13R22.5	154/150 (156/150)	110 (K), 90(G)
11R22.5	148/145	110(K)
12R22.5	152/148	110(K)

TM-1 TYRES FOR TRAILERS AND SEMITRAILERS, CONSTRUCTION SITES AND OFF – ROAD

APPLICATION:

- For construction sites and off-road
- For trailers and semitrailers

ADVANTAGES:

- Aggressive tread pattern with massive sized blocks protects the shoulder area reducing the risk of damage. Increased tread depth for longer life.
- Excellent resistance to abrasion and cuts thanks to more durable special rubber compound as well as to the reinforced metal layers under the tread.
- A special rim cushion with metal cord strengthens the bead zone and increases reliability in difficult conditions.
- Technology of coiling the bead ring from separate wires - Winding ring bead – reduces tension in bead zone and makes wheel balancing and rim fitting easier. A reliable bead ring with good rim fitting provides airtightness.

TYRE SIZE	LOAD INDEX	SPEED INDEX
385/65R22,5	160	110(K)

VC-1, VR-1 TYRES FOR STEERING AND DRIVING AXLE, COACH/BUS

APPLICATION:

- Coach/Bus
- For steering and driving axle of buses and trolley-buses

ADVANTAGES:

- A new universal tread pattern provides economic efficiency when used on buses and trolley-buses in urban setting.
- Reinforced Side Guard protects the tyre from damage from road kerbs and other obstacles. The side wear indicator allows to easily check the tyre wear.
- Elevated tread pattern (up to 22 mm) of the VC-1 tyre guarantees reliable and longer tyre use.
- Tread rubber is more durable and wear-proof thanks to an increased number of active carbon-polymer interaction centers in the SMART-ENDURANCE blend.

TYRE SIZE	LOAD INDEX	SPEED INDEX
275/70R22.5	148/145 (152/148)	100 (J), 70 (E)
245/70R19.5	136/134	110 (K)

APPLIED INNOVATIVE TECHNOLOGIES

SMART-ENDURANCE
A unique rubber blend with highly active black carbon
Increased durability, wear resistance, cut and split resistance. Lower tyre rolling resistance and fuel consumption.

STONE-SHIELD
3D geometry of circular grooves
3D geometry – a combination of geometrical lines creating sidewalls of grooves – is effective against stone penetration. This prevents linear cracking along the bottom of grooves, stones and foreign objects in the grooves, their further penetration into tread pattern under load, and breaker damage.

Double Tread
Bilayer construction of tread cap
Provides safety, reliability and cost efficiency in use. Prevents stone penetration into the rubber, the grooves of the bead cap.

Reinforced Side Guard
Reinforced side construction
Protection of carcass from lateral damages of tyres from road kerbs and other obstacles in urban areas.

Tread Durability Indicator
Tread durability indicator – a special rubber protuberance at the bottom of a groove
Control over residual pattern depth for safe use.

Fuel Efficiency
Increased fuel savings thanks to lower rolling resistance.

STEEL-DEFENSE
Strengthened bead construction
A new strengthened bead significantly increases reliability of tyres in bead zone and increases carrying capacity of a tyre.

Constant Depth Sipe
Knife sipes of equal depth
Knife sipes are made at half-depth of the tread pattern grooves without changing their section, which improves braking and tractive effort on wet and dry surface and provides tread pattern flexibility to increase comfort on the road.

Tread Block with Variable Pitch
Tread blocks with variable pitch
Decrease noise level significantly and enjoy quiet and comfortable driving.

Regroovable Tire
Tread regrooving
Prolongs tyre life by up to 30 000 km.

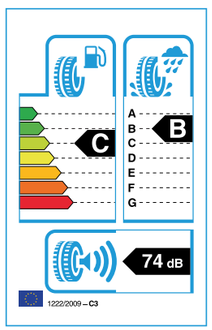
Winding Ring Bead
Technology of bead ring wound of separate wire to reduce tension in bead zone
Longer tyre life. Easier balancing and rim fitting.

CERTIFICATION

The quality of Cordiant Professional products meets high international standards

- Quality management system of manufacturing meets the requirements of ISO/TS 16949. The system of environmental management meets the requirements of ISO 14001.
- The production meets the requirements set by the United Nations Economic Commission for Europe 30, 54, 117 (pattern approval certificate)
- Certificate of Conformity with the Requirements of the Technical Regulation of the Russian Federation
- Conformity with the Directive 1222/2009 of the European Union
- Conformity with REACH regulations
- Certificate of Conformity with the INMETRO requirements

ISO 14001 · REACH · INMETRO



Conformity with Regulation No. 1222/2009 of the European Union on labelling.
A label provides the customer with the following information on tyre properties:

According to the EU Regulation, **Rolling Resistance** is evaluated according to a scale from A (best) to G (worst). The higher rolling resistance is, the less fuel a vehicle consumes.

Wet Grip shortens braking distance in rainy conditions and significantly influences transportation safety. According to the tests, Cordiant Professional tyres score B. This score is on par with premium brands, according to the European labelling system.

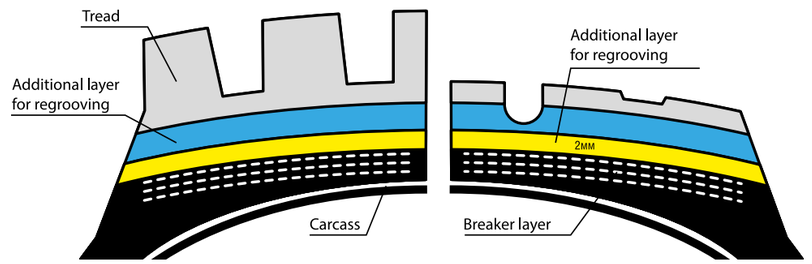
The **External Noise** is measured in decibels (dB). The more decibels the labelling has, the noisier the tyre is.

REGROOVING OF TYRES

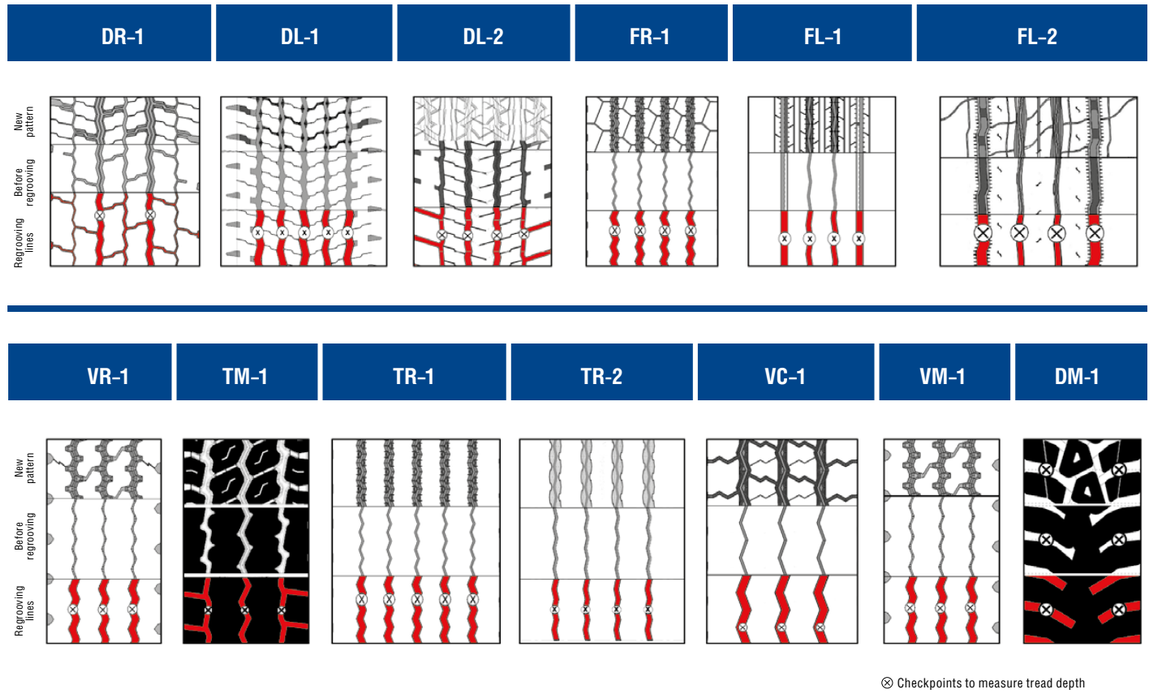
Cost efficiency, reliability and high ROI are the main requirements of professional carriers. Regrooving can increase tyre life. Regrooving of truck tyres is often allowed by national legislation and is recommended to improve safety and mileage. Tyres suitable for regrooving are marked by the letter U or by the word “Regroovable”. Regrooving should be carried out by tyre centers or truck tyre fitting shops, that have truck tyre regrooving schemes recommended by manufacturers, high quality equipment and a specialist able to define the depth of regrooving, choice of the width and the form of blades.

Regrooving increases tyre life significantly (by 20 – 30 per cent depending on the conditions of use) and reduces fuel consumption, as tyres after regrooving have the lowest tyre rolling resistance possible. Regrooving can be done only when residual tread height is at least 2-3 mm. This rule allows reproducing the tread pattern and preserving the minimal thickness of the rubber layer (2 mm) between the tread pattern base and layers in breaker zone.

The depth of regrooving is an observed value in most cases. It is recommended to measure the depth of tread in the most worn out spots to assess the thickness of the rubber layer over the breaker layer.



REGROOVING SCHEMES



In many countries, installation of regrooved tyres on the front axles of trucks and front and middle axles of urban and tourist buses and trolleybuses is not allowed.

CORDIANT PROFESSIONAL TECHNICAL DATA

Cordiant PROFESSIONAL
RELIABLE TECHNOLOGY FOR EFFICIENT LOGISTICS

TYRE SIZE	MODEL	LOAD INDEX	MAXIMAL SPEED (KM/H) (SPEED INDEX)	TYRE PLY RATE	INITIAL TREAD DEPTH (MM)	RECOMMENDED RIM SIZE	ALLOWED RIM SIZE	SECTOR WIDTH (MAX, MM)	EXTERNAL DIAMETER (MM)	STATIC RADIUS (MM)	EUROLABELLING			MAX.LOAD SINGLE, KG	MAX.LOAD DUAL, KG	TYRE PRESSURE CORRESP. TO MAX. LOAD BAR (kPa)
STEER-AXLE																
385/65R22,5	FR-1	158 (160*)	120 (L), 110 (K)	20	15	22,5X11,75	22,5X12,25	405	1074±11	493	D	C	70	41,68 (4250), 44,13 (4500)*	-	9,2 (920)
385/55R22,5	FL-2	160 (158)	110 (K), 120 (L)	20	12,5	22,5x12,25	22,5x11,75	386	991±10	464	C	B	75	44,13 (4500), 41,68 (4250)*	-	9,2 (900), 8,7 (870)
315/80R22,5	FR-1	156/150, 154/150*	120 (L), 130 (M)*	20	15	22,5X9,00	22,5X9,75	318	1076±11	500	D	C	70	39,23 (4000), 32,85 (3350)	36,78 (3750), 32,85 (3350)*	9,0 (900)
315/70R22,5	FR-1	154/150, 152/148*	120 (L), 130 (M)*	18	15,5	22,5X9,00	22,5X9,75	318	1007±10	500	D	C	70	36,78 (3750), 32,85 (3350)	34,81 (3550), 30,89 (3150)*	9,2 (920)
315/70R22,5	FL-2	154/150, 152/148	120 (L), 130 (M)	18	15,5	22,5x9,00	22,5x9,75	318	1014±10	470	C	B	69	36,78 (3750)	32,85 (3350)	9,2 (920)
315/60R22,5	FL-1	152/148	120 (L)	20	13,5	22,5X9,75	22,5X9,00	313	955±10	444	C	B	69	34,81 (3550)	30,89 (3150)	9,2 (920)
295/80R22,5	FR-1	152/148	130 (M)	16	15	22,5X9,00	22,5X8,25	310	1048±10	490	D	C	70	34,81 (3550)	30,89 (3150)	8,7 (870)
295/60R22,5	FL-1	150/147	120 (L)	18	13,5	22,5X9,00	22,5X9,75	292	920±10	420	C	B	69	32,85 (3350)	30,16 (3075)	9,2 (920)
285/70R19,5	FR-1	145/143	130 (M)	16	14	19,5X8,25	19,5X7,50; 19,5X9,00	295	892±9	414	D	C	70	28,44 (2900)	26,72 (2725)	8,7 (870)
245/70R19,5	FR-1	136/134	130 (M)	16	13	19,5X7,50	19,5X6,75	258	836±8	390	D	C	70	21,97 (2240)	20,79 (2120)	8,4 (840)
235/75R17,5	FR-1	132/130	130 (M)	12	13,5	17,5x6,75	17,5x7,50	233	801±8	372	D	C	70	19,61 (2000)	18,63 (1900)	8.1 (810)
215/75R17,5	FR-1	126/124	130(M)	12	13	17,5X6,00	17,5X6,75	220	955±10	359	D	C	70	16,67 (1700)	15,69 (1600)	7,1 (710)
DRIVE-AXLE																
315/80R22,5	DR-1	156/150, 154/150*	120 (L), 130 (M)*	20	20	22,5X9,00	22,5X9,75	318	1088±11	500	E	B	74	39,23 (4000), 32,85 (3350)	36,78 (3750), 32,85 (3350)*	9.0 (900)
315/70R22,5	DR-1	154/150, 152/148*	120 (L), 130 (M)*	18	20	22,5X9,00	22,5X9,75	318	1014±10	500	E	B	74	36,78 (3750), 32,85 (3350)	34,81 (3550), 30,89 (3150)*	9.0 (900)
315/70R22,5	DL-2	154/150, 152/148	120 (L), 130 (M)	18	16,5	22,5x9,00	22,5x9,75	318	1014±10	475	D	C	71	36,78 (3750)	32,85 (3350)	9.0 (900)
315/60R22,5	DL-1	152/148	110 (K)	20	19,5	22,5X9,75	22,5X9,00	326	965±10	451	D	C	71	34,81 (3550)	30,89 (3150)	9,0 (900)
295/80R22,5	DR-1	152/148	130 (M)	16	20,5	22,5X9,00	22,5X8,25	310	1062±16	487	E	B	74	34,81 (3550)	30,89 (3150)	8.5 (850)
295/75R22,5	DR-1	149/146	120 (L)	16	20	22,5X9,00	22,5X8,25	310	1026±10	476	E	B	74	31,87 (3250)	29,42 (3000)	8.5 (850)
295/60R22,5	DL-1	150/147	110 (K)	18	19,5	22,5X9,00	22,5X9,75	304	935±9	430	D	C	71	32,85 (3350)	30,16 (3075)	9,0 (900)
245/70R19,5	DR-1	136/134	130 (M)	16	16	19,5X7,50	19,5X6,75	258	839±8	389	E	B	74	21,97 (2240)	20,79 (2120)	8.5 (850)
235/75R17,5	DR-1	132/130	130 (M)	12	16,5	17,5x6,75	17,5x7,50	242	803±8	372	E	B	74	19,61 (2000)	18,63 (1900)	7,9 (790)
225/75R17,5	DR-1	129/127	130 (M)	12	16	17,5X6,75	17,5X6,00	235	795±8	371	E	B	74	18,14 (1850)	17,16 (1750)	7,25 (725)
215/75R17,5	DR-1	126/124	130 (M)	12	16	17,5X6,00	17,5X6,75	220	772±8	359	E	B	74	16,67 (1700)	15,69 (1600)	7.0 (700)
205/75R17,5	DR-1	124/122	130 (M)	12	15,5	17,5X6,00	17,5X6,75 17,5X5,25	213	758±8	357	E	B	74	15,69 (1600)	14,71 (1500)	7.5 (750)
13R22,5	DM-1	154/150, 156/150*	110 (K), 90 (G)	18	22,5	22,5X9,75	22,5X9,00	326	1135±11	521	E	B	74	36,78 (3750), 32,85 (3350)	39,23 (4000), 32,85 (3350)*	8,8 (880), 9,2 (920)
315/80R22,5	DM-1	156/150	110 (K)	20	22,5	22,5X9,00	22,5X9,75	318	1096±11	500	E	B	74	39,23 (4000)	32,85 (3350)	9,0 (900)
12R22,5	DM-1	152/148	110 (K)	16	23,0	22,5x9,00	22,5x8,25	312	1093±11	504	E	B	74	34,81 (3550)	30,89 (3150)	8,6 (860)
11R22,5	DM-1	148/145	110 (K)	16	22,5	22,5X8,25	22,5X7,50	290	1070±10	498	E	B	74	30,89 (3150)	28,44 (2900)	8,8 (880)
TRAILER-AXLE																
385/65R22,5	TR-1	160 (158*)	110 (K), 120 (L)*	20	16	22,5X11,75	22,5X12,25	405	1072±11	500	C	B	74	44,13 (4500), 41,68 (4250)*	-	9,0 (900)
385/65R22,5	TR-2	160 (158*)	110 (K), 120 (L)*	20	17,5	22,5X11,75	22,5X12,25	405	1061±11	490	C	B	72	44,13 (4500), 41,68 (4250)*	-	9,2 (920), 8,7 (870)
385/65R22,5	TM-1	160	110 (K)	20	18	22,5x11,75	22,5x12,25	405	1072±11	496	E	B	75	44,13 (4500)	-	9,2 (920)
385/55R22,5	TR-1	160 (158*)	110 (K), 120 (L)*	20	15	22,5X12,25	22,5X11,75	401	996±10	464	C	B	74	44,13 (4500), 41,68 (4250)*	-	9,2 (920), 8,7 (870)
265/70R19,5	TR-1	143/141	100 (J)	18	13,5	19,5X7,50	19,5X6,75; 19,5X8,25	278	864±9	396	D	B	74	26,72 (2725)	25,25 (2575)	8,5 (850)
245/70R17,5	TR-2	143/141	100 (J)	18	10,5	17,5X7,5	17,5X6,75	258	794±8	365	C	B	72	26,72 (2725)	25,25 (2575)	9,2 (920)
235/75R17,5	TR-1	143/141	100 (J)	18	13	17,5X6,75	17,5X7,50	242	792±8	370	C	B	74	26,72 (2725)	25,25 (2575)	9,2 (920)
215/75R17,5	TR-1	135/133	100 (J)	16	12,5	17,5X6,00	17,5X6,75	220	772±8	357	C	B	74	21,38 (2180)	20,20 (2060)	8,7 (870)
ALL POSITION (DRIVE AND STEER)																
275/70R22,5	VC-1	148/145, 152/148*	100 (J), 70 (E)*	18	22	22,5X8,25	22,5X7,50	287	972±10	450	E	B	73	30,89 (3150), 28,44 (2900)	34,81(3550), 30,89(3150)*	9,2 (920)
245/70R19,5	VR-1	136/134	110 (K)	16	15	19,5x7,50	19,5x6,75	258	839±11	393	D	C	74	21,97 (2240)	20,79 (2120)	8,5 (850)
13R22,5	VM-1	154/150, 156/150	110 (K), 90 (G)	18	18,5	22,5x9,75	22,5x9,00	326	1126±11	521	**	**	**	36,78 (3750)	32,85 (3350)	8,8 (880), 9,2 (920)
315/80R22,5	VM-1	156/150	110 (K)	20	17	22,5X9,00	22,5X9,75	318	1081±11	495	D	C	74	39,23 (4000)	32,85 (3350)	9,2 (920)
11R22,5	VM-1	148/145	110 (K)	16	18,9	22,5X8,25	22,5X7,50	290	1056±11	495	D	C	74	30,89 (3150)	28,44 (2900)	8,7 (870)

* ADDITIONAL OPERATING MODE ** TYRE IS ON PROBATION

WHEN MOUNTING:

- Professional tyre fitting. All works should be done by certified specialists and only with modern professional equipment.
- Balancing of each tyre will improve steering response, increase ride comfort and ensure more even wear.
- Conformity of tyre and rim. The choice of tyres is made according to the manufacturer's recommendations and technical characteristics.
- Correspondence between the axle and the tyre type. Each tyre is meant for a certain axle. Its use on another axle will lead to a worse rolling response and shorter tyre life.
- Conformity with the load limitations for the axle and the tyre. It is prohibited to use a tyre under load index or speed which does not comply with the manufacturer's recommendations.

DURING USE:

- Regular tread wear control. Uneven tyre wear shortens its life. Operation is prohibited when wear indicators show complete wear.
- Removal of foreign objects from tread grooves and between dual wheels minimizes tyre damage.
- Regular tyre pressure control helps to achieve the most even wear, ensure maximal safety and reliability.
- Control over working conditions of all elements of car suspension and braking system.
- Tyre switching between axles and sides of a vehicle.
- Careful driving with minimum possible emergency acceleration and braking.
- Rational distribution of transported load.
- Regrooving or recapping of tread will help to achieve the maximal tyre efficiency.

NOTES