



CST[®]
TIRES

PASSENGER CAR TIRE

2024/2025



OUR COMPANY

CST was founded in 1989 by Cheng Shin Rubber (Xiamen) Ind., Ltd. The Cheng Shin Tire Group is the top tire manufacturer in China and one of the top 10 tire manufacturers in the world, with products distributed in more than 150 countries.

CST covers a wide range of market segments. CST products include tires and tubes for passenger, truck and bus, bicycle, motorcycle, ATV, forklift, agricultural, and lawn and garden equipment.

The company's new factory in Xiamen, China, which produces passenger radial and light truck radial tires, brings CST's tire development and manufacturing to a world-class level. This state-of-the-art facility employs innovative technology and advanced equipment from Germany, Italy, Holland, Japan and Taiwan.

Adhering to the most stringent international standards, CST has attained certificates and awards including DOT (US Department of Transportation) certification, ISO9001, E-Mark, IATF16949 and the China Well Known Brand Award.

With a first-rate manufacturing operation and highly efficient logistics, CST sets the standard for excellence in the tire industry. At CST, quality, integrity and service are more than just words: They're the foundation of the company from top management to the factory floor and beyond.

- 17 FACTORIES:
 - 6 in Taiwan
 - 7 in China
 - 1 in Thailand
- 5 R&D CENTERS:
 - 1 in Vietnam
 - 1 in Indonesia
 - 1 in India
- 1 PROVING GROUND in Shanghai, China
- 7 OVERSEAS SUBSIDIARIES:
 - 1 in USA
 - 1 in Canada
 - 1 in Germany
- 1 in USA
 - 1 in UK
 - 1 in Japan
 - 1 in Holland
 - 1 in Mexico
- 1 in USA
 - 2 in China
 - 1 in Taiwan



CONTENTS

Passenger Car and SUV

SALEKS EX-1 NEW	8
ADRENO AD-R9/AD-R9 SUV	10
MEDALLION MD-A7/MD-A7 SUV	12
ADRENO AD-R9 RFT	13
MARQUIS MR61	14
MEDALLION SUV MD-S1	15
MARQUIS MR-C5	16
MEDALLION ALL-SEASON ACPI	18
MEDALLION WINTER WCP1	20

Commercial tires

VAN MASTER VR-M3 NEW	24
VAN MASTER ALL-SEASON ACT1	26
VAN MASTER VR36	27
CL31, CL02, CS105	28

2023 Global tire company rankings

August 2023, Tire Business

2023 rank	Company	Revenue
1	Michelin	USD 28.26 billion
2	Bridgestone	USD 26.6 billion
3	Goodyear	USD 17.89 billion
4	Continental	USD 12.42 billion
5	Sumitomo Rubber	USD 7.16 billion
6	Pirelli	USD 6.95 billion
7	Hankook	USD 6.31 billion
8	Yokohama	USD 5.74 billion
9	Zhongce Rubber	USD 4.17 billion
10	Cheng Shin Rubber	USD 3.67 billion
11	Toyo Tire	USD 3.47 billion
12	Sailun Group	USD 3.29 billion
13	Apollo Tyres	USD 3.13 billion
14	MRF	USD 2.87 billion
15	Giti Tire	USD 2.84 billion



PROVING GROUND

As CST has grown, and research and development increased, the company decided to invest in a world class proving ground. Located near Shanghai, in the city of Kunshan, the Proving Ground opened in late 2012 at a cost of 150 million USD.

Built by specialist engineering companies from around the globe, the site is 860,000 square metres and is one of the most advanced proving grounds in China, with individual test areas for high-speed handling, braking, wet/dry handling and N.V.H. durability.

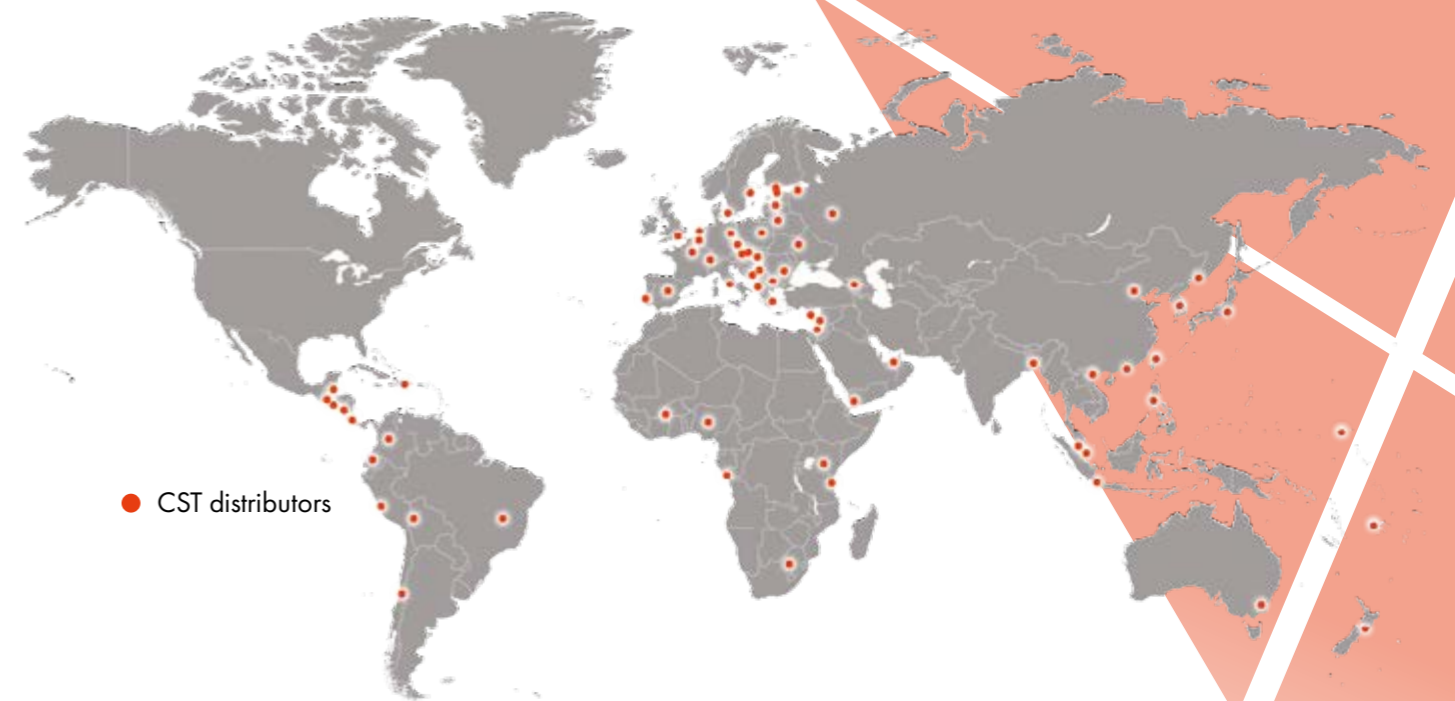
The high-speed test track features 45-degree banking in the corners, allowing the vehicle to maintain speeds of up to 210km/h. The test course also features state-of-the-art intelligent watering system that allows for precise control of water-film thickness for consistent wet-surface testing.

There are 13 different real-world road surfaces, allowing engineers to precisely engineer each tyre for its intended conditions. The track also features the only ISO 10844-2011 certified test course in China capable of conducting ISO testing for both China and Europe.



1 HIGH SPEED CIRCUIT <ul style="list-style-type: none"> Track length: 4.5km Width: 12-16m Surface: Asphalt Up to 280km/h banking at 45° 	4 DRY HANDLING <ul style="list-style-type: none"> Track length: 2.8km Width: 6-9m Surface: Asphalt Cornering and handling 	7 RIDE AND DURABILITY ROAD <ul style="list-style-type: none"> Track length: 4.6km Width: 7m Surface: Asphalt, concrete, stone Ride comfort, durability, cabin noise
2 DYNAMIC PLATFORM <ul style="list-style-type: none"> Track length: 1.5km Width: 40m Surface: Asphalt Dry handling/cornering, sliding stability 	5 BRAKING TRACK <ul style="list-style-type: none"> Track length: 1.2km Test area: 200x45m Surface: Asphalt, concrete, ceramic Wet braking, control-loss simulation, ABS 	8 N.V.H. TRACK <ul style="list-style-type: none"> Track length: 2.3km Width: 11m Surface: Asphalt, concrete Vibration, noise, ride comfort
3 WET CYCLE <ul style="list-style-type: none"> Diameter: 140m Surface: Asphalt, concrete, Belgian road Wet handling/wet cornering traction 	6 WET HANDLING <ul style="list-style-type: none"> Track length: 1.4km Width: 6m Surface: Asphalt Cornering and handling 	9 ISO NOISE TRACK <ul style="list-style-type: none"> Track length: 40m Width: 20m Surface: Asphalt Road test surface standardised by ISO

CST PCR DISTRIBUTORS



● CST distributors

OEM PARTNERS

WE ARE ALSO THE OEM TIRE SUPPLIER FOR MANY WELL-KNOWN BRANDS, INCLUDING:

CST BICYCLE:

- Giant
- Merida
- Bridgestone
- Continental
- Specialized
- Trek
- Decathlon

CST MOTORCYCLE:

- Honda
- Sym
- Yamaha
- Suzuki
- Kymco
- Piaggio
- CF Moto

CST ATV:

- Polaris
- John Deere
- Yamaha

CST FORKLIFT:

- Linde
- Heli
- H&C
- Mitsubishi
- Doosan
- BYD

MAXXIS CAR/SPARE TIRES:

- Mercedes Benz
- Volkswagen
- Infiniti
- Toyota
- Nissan
- Honda
- Lincoln
- Volkswagen
- Lincoln
- Ford
- Hyundai
- Kia
- Buick
- Chevrolet





PASSENGER CAR & SUV

CST

NEW

SALEKS E-X1

DIAMOND DIFFUSION RUBBER MIXING

CST's exclusive and advanced technology to mix rubber and chemicals under low temperature improves the dispersal of silica in the tread by **30%**, enabling silica to spread evenly throughout the tire surface like a diamond structure to enhance overall performance.

- 10%** enhanced wet braking for best control
- 5%** reduced rolling resistance for a longer mileage
- 3%** improved tread life for a better longevity



DIAMOND FEATHER AERODYNAMIC SIDEWALL

Aero dynamic tire sidewall in a diamond feather pattern reduces air resistance by speeding up the airflow across the tire surface, which helps with lower energy consumption and longer mileage.

DIAMOND STRUCTURE REINFORCEMENT

- Enhanced cap ply is **20%** stronger
- Enhanced steel belts are **15%** stronger
- Enhanced body ply is **20%** stronger

Reinforced tire structure avoids the irregular wear caused by heavier batteries of EV cars

DIAMOND BEEHIVE TECHNOLOGY

Sound Sponge technology can efficiently reduce noise by **5dB** in the car cabin by using polyurethane foam to reduce internal noise.



SILICA compound technology

ALL-AROUND performance in the dry and wet

LOW rolling resistance for extra mileage

ENGINEERED for electric vehicles

KINDER to the environment

SOUNDLESS driving experience with low noise levels



THE NEW ENERGY CONSCIOUS TIRE FOR ELECTRIC CARS

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB	
16	195/60R16	89H	5.5-(6.0)-6.5	580	44	C	A	-	NEW
	205/60R16	96V XL	5.5-(6.0)-6.5	710	50	B	A	-	NEW
17	205/50 R17	93W XL	6.0-(6.5)-7.0	650	50	B	A	-	NEW
	215/55R17	98W XL	6.5-(7.0)-7.5	750	50	B	A	-	NEW
18	225/55R17	101W XL	6.5-(7.0)-7.5	825	50	B	A	-	NEW
	235/45R18	98W XL	7.5-(8.0)-8.5	750	50	B	A	-	NEW
	215/50R18	96W XL	6.5-(7.0)-7.5	710	50	B	A	-	NEW
	235/50R18	97W	7.0-(7.5)-8.0	730	51	B	A	-	NEW
19	225/60R18	104H XL	6.0-(6.5)-7.0	900	50	B	A	-	NEW
	235/60R18	103H	6.5-(7.0)-7.5	875	44	B	A	-	NEW
	235/40R19	96W XL	8.0-(8.5)-9.0	710	50	B	A	-	NEW
	245/45R19	102W XL	7.5-(8.0)-8.5	850	50	B	A	-	NEW
	255/45R19	104Y XL	8.0-(8.5)-9.0	900	50	B	A	A 70	NEW
	245/50R19	105V XL	7.0-(7.5)-8.0	925	50	B	A	-	NEW
20	235/55R19	105Y XL	7.0-(7.5)-8.0	925	50	B	A	-	NEW
	255/50R19	103Y	7.5-(8.0)-8.5	875	51	B	A	A 70	NEW
	255/55R19	111V XL	7.5-(8.0)-8.5	1090	50	A	A	A 70	NEW
	245/40R20	99Y XL	8.0-(8.5)-9.0	775	50	B	A	-	NEW
	255/40R20	101Y XL	8.5-(9.0)-9.5	825	50	B	A	A 70	NEW
	245/45R20	103W XL	7.5-(8.0)-8.5	875	50	B	A	-	NEW
	255/45R20	105V XL	8.0-(8.5)-9.0	925	50	B	A	A 70	NEW
	265/45R20	108W XL	8.5-(9.0)-9.5	1000	50	B	A	A 70	NEW
20	235/50R20	104V XL	7.0-(7.5)-8.0	900	50	B	A	-	NEW
	255/50R20	109W XL	7.5-(8.0)-8.5	1030	50	A	A	A 70	NEW
	235/55R20	102V	7.0-(7.5)-8.0	850	44	B	A	-	NEW

UTQG rating 320 A A

DIAMOND ARROW 3D PATTERN DESIGN

- Special angle on the sipes provides enhanced water dispersal to prevent skidding
- Four main grooves ensure efficient water dispersal on wet roads
- Consistent sipes on central rib offer smooth rolling for a comfortable ride
- Consistent V-sipes on the inside rib maximise the tire footprint for cornering control
- Closed-grooves on the shoulder reduce air vibration and sound
- Differing tread pitch on the shoulder eliminates the resonance that causes noise



CST

ADRENO AD-R9/AD-R9 SUV

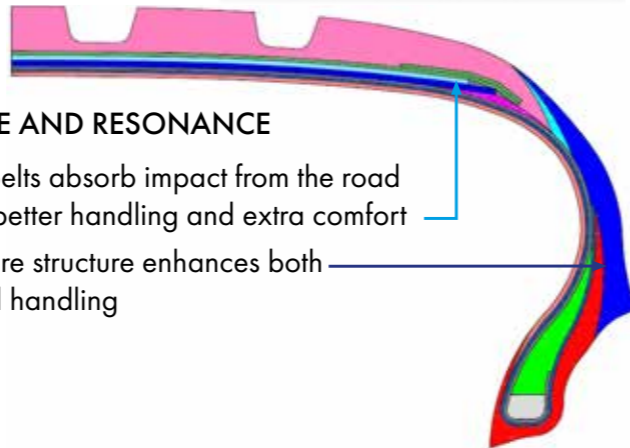
Designed to deliver better handling at high speeds

- FULL-SILICA TREAD COMPOUND
– For excellent wet and dry grip and braking
 - 3+1 SPORT PATTERN DESIGN
– Disperses water efficiently to reduce noise and the risk of aquaplaning
 - 〰️ Special curved tread for better water dispersal
 - ▲ Closed shoulder design reduces noise levels
- 20% REINFORCED STRUCTURE
– New steel belt construction absorbs impact, providing more comfort, plus better acceleration and handling

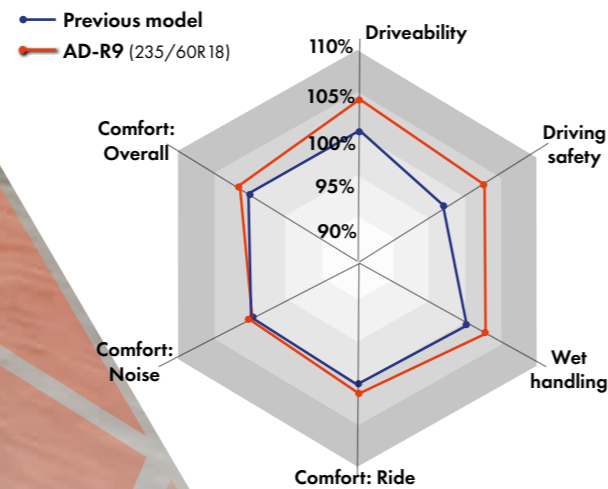


REDUCED NOISE AND RESONANCE

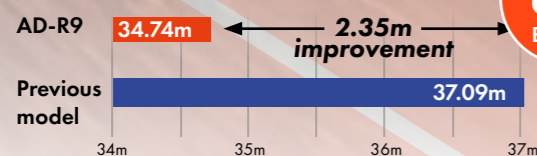
- New steel belts absorb impact from the road surface for better handling and extra comfort
- Optimised tire structure enhances both comfort and handling



AD-R9 PERFORMANCE CHARACTERISTICS

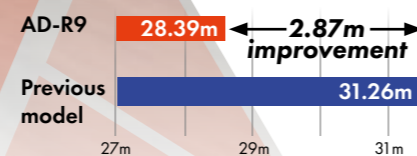


DRY BRAKING PERFORMANCE



**AD-R9
6%
BETTER**

WET BRAKING PERFORMANCE



**AD-R9
10%
BETTER**

PERFORMANCE THAT IMPRESSES PROFESSIONALS



CAR SIZES

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB	
18	245/35R18	92Y XL	8.0-(8.5)-9.0	630	50	-	-	-	NEW
	215/40R18	89Y XL	7.0-(7.5)-8.0	580	50	C	A	B 71	
	225/40R18	92Y XL	7.5-(8.0)-8.5	630	50	C	A	B 71	
	245/40R18	97Y XL	8.0-(8.5)-9.0	730	50	C	A	B 71	
	225/45R18	95Y XL	7.0-(7.5)-8.0	690	50	C	A	B 71	
	235/45R18	98Y XL	7.5-(8.0)-8.5	750	50	C	A	B 71	
	245/45R18	100Y XL	7.5-(8.0)-8.5	800	50	C	A	B 71	
19	235/35R19	91Y XL	8.0-(8.5)-9.0	615	50	-	-	-	NEW
	255/35R19	96Y XL	8.5-(9.0)-9.5	710	50	-	-	-	NEW
	225/40R19	93Y XL	7.5-(8.0)-8.5	650	50	C	A	B 71	
	245/40R19	98Y XL	8.0-(8.5)-9.0	750	50	C	A	B 71	
	255/40R19	100Y XL	8.5-(9.0)-9.5	800	50	C	A	B 71	
	225/45R19	96Y XL	7.0-(7.5)-8.0	710	50	C	A	B 71	
	245/45R19	102Y XL	7.5-(8.0)-8.5	850	50	C	A	B 71	
20	255/35R20	97Y XL	8.5-(9.0)-9.5	730	50	-	-	-	NEW
	275/35R20	102Y XL	9.0-(9.5)-10.0	850	50	-	-	-	NEW
	245/40R20	99Y XL	8.0-(8.5)-9.0	755	50	C	A	B 71	
	255/40R20	101Y XL	8.5-(9.0)-9.5	825	50	-	-	-	NEW

SUV SIZES

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB	
18	235/50R18	101Y XL	7.0-(7.5)-8.0	825	50	-	A	B 71	NEW
	235/60R18	107W XL	6.5-(7.0)-8.5	975	50	B	B	B 71	
	245/60R18	105V	7.0-(7.0)-8.5	925	44	C	B	B 71	
19	235/45R19	99Y XL	7.5-(8.0)-8.5	690	51	-	B	B 71	NEW
	235/50R19	103Y XL	7.0-(7.5)-8.0	775	51	-	A	B 71	NEW
	255/50R19	107Y XL	7.0-(8.0)-9.0	975	50	C	A	B 71	
	225/55R19	103Y XL	7.0-(7.0)-8.5	775	44	-	A	B 71	NEW
	235/55R19	105Y XL	7.0-(7.5)-8.5	825	51	-	A	B 71	NEW
	245/55R19	103V	7.0-(7.5)-8.5	875	44	C	A	B 71	
	255/55R19	107V	7.0-(8.0)-9.0	975	44	C	A	B 71	
20	275/40R20	106Y XL	9.0-(9.5)-10.0	950	50	-	-	-	NEW
	245/45R20	103Y XL	7.5-(8.0)-9.0	875	50	C	A	B 71	
	255/45R20	105Y XL	8.0-(8.5)-9.5	925	50	C	A	B 71	
	275/45R20	110Y XL	8.5-(9.0)-9.5	1060	50	-	-	-	NEW
	245/50R20	102W	7.0-(7.5)-8.0	850	44	-	A	B 71	NEW
	255/50R20	109Y XL	7.0-(8.0)-9.0	975	50	C	A	B 71	
	265/50R20	111W XL	8.0-(8.5)-9.0	1090	50	-	-	-	NEW
	275/50R20	113Y XL	8.0-(8.5)-9.5	1150	50	-	-	-	NEW
	285/50R20	116V XL	8.5-(9.0)-9.5	1250	50	-	-	-	NEW
	235/55R20	105Y XL	6.5-(7.5)-8.5	925	50	B	A	B 71	
255/55R20	110W XL	7.5-(8.0)-8.5	1060	50	-	A	B 71	NEW	
275/55R20	117V XL	8.0-(8.5)-9.0	1285	50	-	-	-	NEW	

UTQG rating 280 AA A

CST

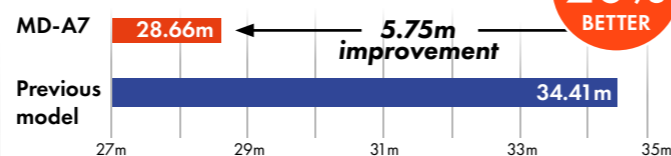
MEDALLION MD-A7 / MD-A7 SUV

- Special sipes design improves the mechanics of motion fluidity to optimise smoother driving stability at high speeds
- New shock-absorbing technology provides optimal comfort for an enjoyable journey
- New groove design with closed-shoulders lowers air vibration and noise resonance for a quiet ride
- Advanced full-silica tread compound and special pattern design with curve tread improve water dispersal in wet conditions for a remarkable wet braking and safety



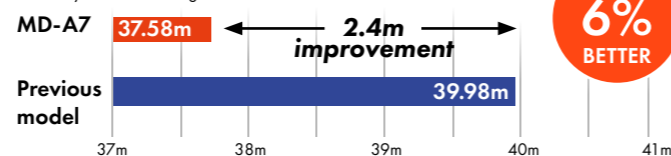
WET BRAKING PERFORMANCE

Tested by MAXXIS Proving Ground

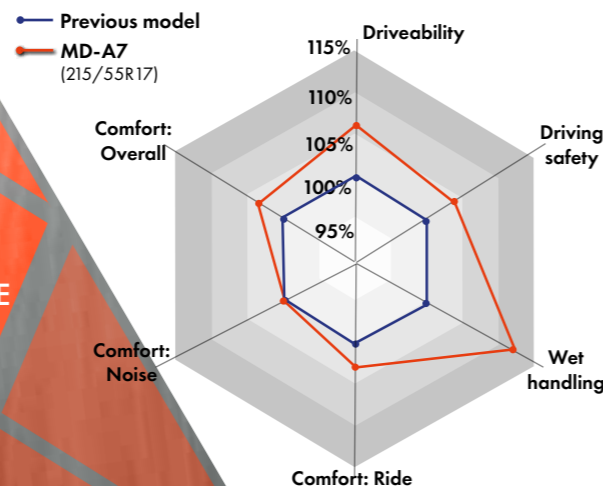


DRY BRAKING PERFORMANCE

Tested by MAXXIS Proving Ground



MD-A7 PERFORMANCE CHARACTERISTICS



- OUTSTANDING HANDLING AND BRAKING
- AN ESPECIALLY PEACEFUL DRIVE
- COMFORTABLE DRIVING EXPERIENCE
- IMPRESSIVE WET BRAKING

**ONLY THE SOUNDS
YOU WANT TO HEAR**

CAR SIZES

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB	
15	195/50R15	86V XL	5.5-(6.0)-7.0	530	50	-	A	A 68	NEW
	205/45R16	87W XL	6.5-(7.0)-7.5	560	50	-	A	A 68	NEW
	195/50R16	88V XL	5.5-(6.0)-6.5	560	50	-	A	A 68	
	205/50R16	91W XL	6.0-(6.5)-7.0	615	50	-	A	A 68	NEW
	195/55R16	91V XL	5.5-(6.0)-7.0	615	50	C	A	A 68	
16	205/55R16	94W XL	5.5-(6.5)-7.5	670	50	C	A	A 68	
	215/55R16	97W XL	6.0-(7.0)-7.5	730	50	-	A	A 68	NEW
	225/55R16	99W XL	6.0-(7.0)-7.5	775	50	-	A	A 68	NEW
	195/60R16	89V	5.5-(6.0)-6.5	650	50	-	-	-	NEW
	205/60R16	96V XL	5.5-(6.0)-7.5	710	50	C	A	A 68	
	215/60R16	99W XL	6.0-(6.5)-7.0	775	50	-	-	-	NEW
	205/65R16	95V	5.5-(6.0)-7.5	690	44	C	A	A 68	
17	215/40R17	87Y XL	7.0-(7.5)-8.0	545	50	-	A	-	NEW
	215/45R17	91Y XL	6.0-(7.0)-7.5	615	50	-	A	A 68	NEW
	225/45R17	94Y XL	7.0-(7.5)-8.0	640	50	C	A	A 68	
	235/45R17	97Y XL	7.5-(8.0)-8.5	730	50	-	A	A 68	NEW
	205/50R17	93Y XL	5.5-(6.5)-7.5	650	50	C	A	A 68	
	215/50R17	95Y XL	6.0-(7.0)-7.5	690	50	C	A	A 68	
	225/50R17	98Y XL	6.0-(7.0)-8.0	750	50	C	A	A 68	
	235/50R17	100W XL	7.0-(7.5)-8.0	800	50	-	A	-	NEW
	205/55R17	95Y XL	5.5-(6.5)-7.5	690	50	C	A	A 68	
	215/55R17	98Y XL	6.0-(7.0)-7.5	750	51	B	A	A 68	
225/55R17	101Y XL	6.0-(7.0)-8.0	825	50	C	A	A 68		

SUV SIZES

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB	
16	215/65R16	102H XL	6.0-(6.5)-7.5	850	50	C	A	A 68	
	235/55R17	103W XL	7.0-(7.5)-8.0	875	50	C	A	A 68	
	215/60R17	100V XL	6.0-(6.5)-7.0	710	44	-	A	A 68	NEW
17	225/60R17	103V XL	6.0-(6.5)-7.0	775	44	-	A	A 68	NEW
	215/65R17	103V XL	6.0-(6.5)-7.0	775	44	-	A	A 68	NEW
	225/65R17	106V XL	6.0-(6.5)-7.0	850	44	-	A	A 68	NEW
	235/65R17	108V XL	6.5-(7.0)-8.5	1000	50	C	A	A 68	
	225/50R18	99W XL	6.5-(7.0)-7.5	775	50	-	A	A 68	NEW
18	215/55R18	99V XL	6.0-(7.0)-7.5	775	50	C	A	A 68	
	225/55R18	102W XL	6.5-(7.0)-7.5	750	44	-	A	A 68	NEW
	235/55R18	104W XL	7.0-(7.5)-8.0	900	50	-	A	A 68	NEW
	255/55R18	109W XI	7.5-(8.0)-8.5	1030	50	-	A	-	NEW
	225/60R18	104W XL	6.0-(6.5)-7.5	900	50	-	A	A 68	NEW
	235/60R18	107W XL	6.5-(7.0)-7.5	875	44	-	A	A 68	NEW
	235/65R18	110V XL	6.0-(7.0)-7.5	1,060	50	-	A	A 68	NEW

UTQG rating 320 AA A

CST

ADRENO AD-R9 RFT

CST's AD'R9 run-flat technology – the safe and reliable alternative for cars that don't include a spare tire

A properly inflated tire supports the weight of a vehicle primarily with the sidewall. Driving with low or zero inflation pressure puts additional stress on the sidewall, which can cause sudden sidewall failure. This is especially critical for front-wheel-drive cars, where front tire failures can often lead to total loss of control.

Run-flat tires allow vehicles to travel at 80km/h for a distance of 80 kilometres even with zero air pressure, delivering extra safety and peace of mind until the tire is repaired or replaced at the earliest possible opportunity.

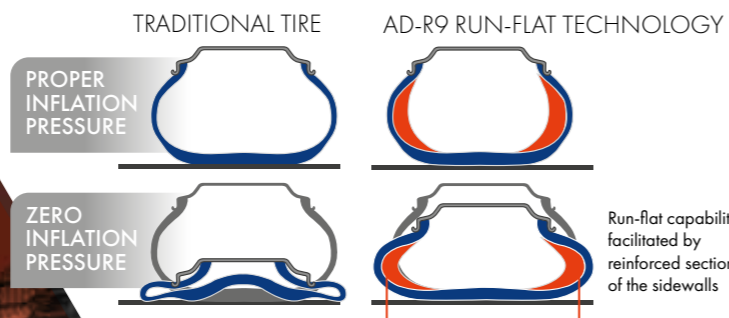


High stiffness steel belts enhance tire structure and stability by minimising the deformation by flat tire for a safe journey

Extra rubber padding and special body-PLY construction provide outstanding endurance under low air pressure

Advanced bead filler rubber improves stiffness under high temperature conditions

Extra PLY in the sidewall strengthens bead endurance for a better loading under low air pressure



Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)
16	205/55ZRF16	91W	5.5-(6.5)-7.5	615	36.3
	225/45ZRF17	91W	7.0-(7.5)-8.5	615	36.3
17	225/50ZRF17	94W	6.0-(7.0)-8.0	670	36.3
	225/55ZRF17	97W	6.0-(7.0)-8.0	730	36.3
18	225/45ZRF18	91W	7.0-(7.5)-8.5	615	36.3
	245/45ZRF18	96W	7.5-(8.0)-9.0	710	36.3
	245/50ZRF18	104Y XL	7.0-(7.5)-8.5	900	42.1
19	255/55ZRF18	109V XL	7.0-(8.0)-9.0	1030	42.1
	255/50ZRF19	107Y XL	7.0-(8.0)-9.0	975	42.1
	235/55RF19	101V	6.5-(7.5)-8.5	825	36.3

UTQG rating 280 AA A

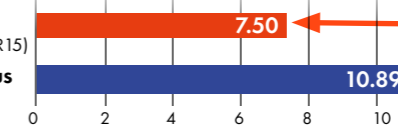
CST

MARQUIS MR61

- High-silica compound delivers low rolling resistance for high fuel efficiency
- Asymmetrical inner and outer shoulder design provides a better contact area for superb grip
- Off-centre central ribs improve handling performance
- Inner shoulder's close pitch provides great water dispersion
- Three main grooves enhance contact for extra mileage
- Pattern design optimises the contact area to prevent uneven wear

LOW-ENERGY FUEL-EFFICIENT

MR61 (195/65R15)
Previous model



MR61 31% BETTER

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
13	155/65R13	73T	4.5-(4.5)-5.5	365	44	C	B	B 70
	155/70R13	75T	4.0-(4.5)-5.5	387	44	C	B	B 70
	165/70R13	79T	4.0-(5.0)-5.5	437	44	C	B	B 70
	175/70R13	82T	4.5-(5.0)-6.0	475	44	C	B	B 70
	185/70R13	86H	4.5-(5.5)-6.0	530	44	C	B	B 70
	145/80R13	75T	3.5-(4.0)-4.5	387	44	-	-	-
	155/80R13	79T	4.0-(4.5)-5.0	437	44	C	B	B 70
	165/55R14	72V	4.5-(5.0)-5.5	355	44	-	-	-
	165/60R14	75H	4.5-(5.0)-6.0	387	44	C	B	B 70
	175/60R14	79H	5.0-(5.5)-6.0	437	44	C	B	B 70
14	185/60R14	82H	5.0-(5.5)-6.5	475	44	C	B	B 70
	205/60R14	88H	5.5-(6.0)-6.5	560	44	C	B	B 70
	155/65R14	75T	4.5-(4.5)-5.5	387	44	C	B	B 70
	165/65R14	83H XL	4.5-(5.0)-6.0	487	50	C	B	B 70
	175/65R14	82H	5.0-(5.0)-6.0	475	44	C	B	B 70
	185/65R14	86H	5.0-(5.5)-6.5	530	44	C	B	B 70
	195/65R14	89H	5.5-(6.0)-7.0	580	44	C	B	B 70
	165/70R14	81T	4.0-(5.0)-5.5	462	44	C	B	B 70
	175/70R14	84H	4.5-(5.0)-6.0	500	44	C	B	B 70
	175/70R14	88H XL	4.5-(5.0)-6.0	560	50	C	B	B 70
15	185/70R14	88T	4.5-(5.5)-6.0	560	44	C	B	B 70
	185/70R14	88H	4.5-(5.5)-6.0	560	44	C	B	B 70
	195/70R14	91H	5.0-(6.0)-6.5	615	44	C	B	B 70
	205/70R14	98H XL	5.0-(6.0)-7.0	750	50	C	B	B 70
	165/55R15	75V	4.5-(5.0)-5.5	387	44	D	B	B 70
	175/55R15	77T	5.0-(5.5)-6.0	412	44	C	B	B 70
	185/55R15	82H	5.5-(6.0)-6.5	475	44	C	B	B 70
	185/55R15	86V XL	5.5-(6.0)-6.5	530	50	C	B	B 70
	195/55R15	85V	5.5-(6.0)-7.0	515	44	C	B	B 70
	165/60R15	77H	4.5-(5.0)-6.0	412	44	C	B	B 70
16	165/60R15	81H XL	4.5-(5.0)-6.0	462	50	-	B	B 70
	175/60R15	81H	5.0-(5.5)-6.0	462	44	C	B	B 70
	185/60R15	84H	5.0-(5.5)-6.5	500	44	C	B	B 70
	185/60R15	88H XL	5.0-(5.5)-6.5	560	50	C	B	B 70
	195/60R15	88V	5.5-(6.0)-7.0	560	44	C	B	B 70
	205/60R15	91V	5.5-(6.0)-7.5	615	44	C	B	B 70
	225/60R15	96H	6.0-(6.5)-8.0	710	44	C	B	B 70
	175/65R15	84H	5.0-(5.5)-6.0	500	44	C	B	B 70
	185/65R15	88H	5.0-(5.5)-6.5	560	44	C	B	B 70
	185/65R15	92H XL	5.0-(5.5)-6.5	630	50	C	B	B 70
17	195/65R15	91V	5.5-(6.0)-7.0	615	44	C	B	B 70
	195/65R15	95V XL	5.5-(6.0)-7.0	690	50	C	B	B 70
	205/65R15	94V	5.5-(6.0)-7.5	670	44	C	B	B 70
	215/65R15	100H XL	6.0-(6.5)-7.5	800	50	C	B	B 70

UTQG rating 400 AA A

CST

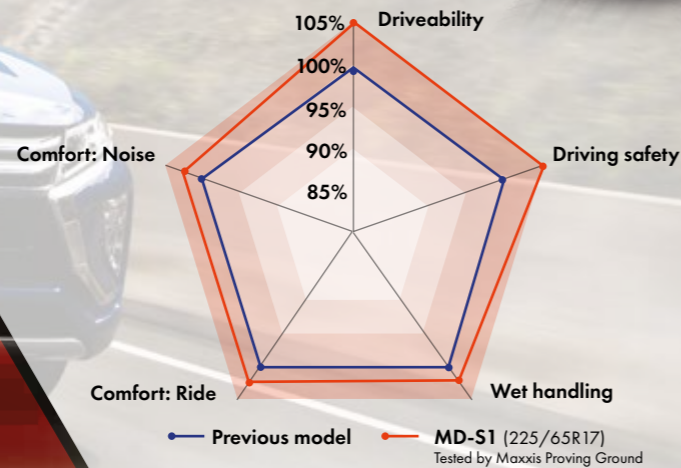
MEDALLION MD-S1

A BETTER SUV DRIVING EXPERIENCE

- Inverted-angled pattern design improves tire rigidity and enhances handling performance
- Four main circumferential grooves improve wet grip with efficient water dispersal
- Bridged lateral grooves at the shoulder increases tire rigidity and reduces tread pattern noise
- Central rib pattern reduces pattern noise and delivers exceptional all-round performance



MD-S1 PERFORMANCE CHARACTERISTICS



Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)
15	205/70R15	96H	5.0-(6.0)-7.0	300	44
	215/65R16	102H XL	6.0-(6.5)-7.5	340	50
16	215/70R16	100H	5.5-(6.5)-7.0	300	44
	215/55R17	98V XL	6.0-(7.0)-7.5	340	50
17	235/55R17	99V	6.5-(7.5)-8.5	300	44
	215/60R17	96H	6.0-(6.5)-7.5	300	44
	225/60R17	99H	6.0-(6.5)-8.0	300	44
	235/60R17	102H	6.5-(7.0)-8.5	300	44
	215/65R17	99V	6.0-(6.5)-7.5	300	44
	225/65R17	102H	6.0-(6.5)-8.0	300	44
	235/65R17	108V XL	6.5-(7.0)-8.5	340	50
	265/65R17	112H	7.5-(8.0)-9.5	300	44
	215/55R18	95H	6.0-(7.0)-7.5	300	44
	225/55R18	98V	6.0-(7.0)-8.0	300	44
18	235/55R18	100V	6.5-(7.5)-8.5	300	44
	225/60R18	100H	6.0-(6.5)-8.0	300	44
	235/60R18	103V	6.5-(7.0)-8.5	300	44

UTQG rating 560 A A

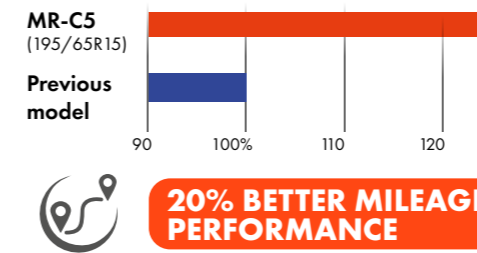
CST

MARQUIS MR-C5

FIRST CHOICE FOR DURABILITY

- Optimised tire footprint engineered to avoid irregular wear for longer mileage and improved durability
- Closed shoulder design reduces air vibration to minimise tire noise
- Special grooved angle in the tire shoulder reduces road impact for Lower noise emission
- Central rib pattern design enhances high-speed stability and delivers a comfortable ride
- Highly rigid structure and a new profile design provides excellent stability under high-speed conditions

MILEAGE SIMULATION TEST (by Maxxis Proving Ground)



20% BETTER MILEAGE PERFORMANCE



Rim	Size	Index	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)
13	175/70R13	82T	4.5-(5.0)-6.0	475	44
	165/60R14	75H	4.5-(5.0)-6.0	387	44
14	185/60R14	82H	5.0-(5.5)-6.5	475	44
	175/65R14	82H	5.0-(5.5)-6.0	475	44
	185/65R14	86H	5.0-(5.5)-6.5	530	44
	175/70R14	84H	4.5-(5.0)-6.0	500	44
	185/70R14	88H	4.5-(5.5)-6.0	560	44
15	185/55R15	82H	5.0-(6.0)-6.5	475	44
	195/55R15	85V	5.5-(6.0)-7.0	515	44
	185/60R15	84H	5.0-(5.5)-6.5	500	44
	195/60R15	88H	5.5-(6.0)-7.0	560	44
	185/65R15	88H	5.0-(5.5)-6.5	560	44
	195/65R15	91H	5.5-(6.0)-7.0	615	44
16	205/65R15	94V	5.5-(6.0)-7.5	670	44
	205/55R16	91V	5.5-(6.5)-7.5	615	44
	195/60R16	89H	5.5-(6.0)-7.0	580	44
	205/60R16	92V	5.5-(6.0)-7.5	630	44

UTQG rating 500 A A



MEDALLION ALL SEASON ACP1

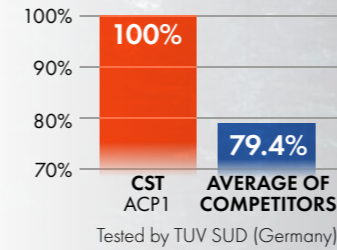
THE ALL-SEASON ACP1 TRULY LIVES UP TO ITS NAME

- V-shaped lateral grooves optimise water dispersal and snow traction
- Wavy longitudinal grooves for great water dispersal
- Uni-directional pattern delivers optimal handling
- Full-silica compound provides excellent braking, even on slippery surfaces, keeping braking distances short
- 3D sipes deliver impressive handling all year round
- Alternating pitch design reduces pattern noise and delivers balanced performance

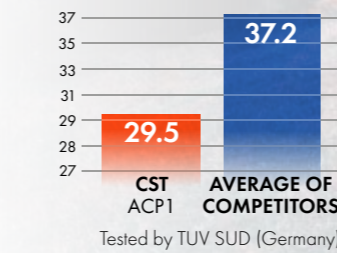


Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
13	155/65R13	73T	4.5-(4.5)-5.5	365	44	D	C	B 71
	155/70R13	75T	4.0-(4.5)-5.0	387	44	D	C	B 71
	165/70R13	79T	4.0-(5.0)-5.5	437	44	D	C	B 71
14	155/80R13	83T XL	4.0-(4.5)-5.0	487	50	C	C	B 71
	185/60R14	82H	5.0-(5.5)-6.5	475	44	D	B	B 71
	155/65R14	75T	4.5-(4.5)-5.5	387	44	D	C	B 71
	165/65R14	79T	4.5-(5.0)-6.0	437	44	D	C	B 71
	165/65R14	83H XL	4.5-(5.0)-6.0	487	50	D	C	B 71
	175/65R14	82T	5.0-(5.0)-6.0	475	44	C	B	B 71
	185/65R14	86H	5.0-(5.5)-6.5	530	44	D	B	B 71
	165/70R14	81T	4.0-(5.0)-5.5	462	44	D	C	B 71
	175/70R14	88T XL	4.5-(5.0)-6.0	560	50	D	B	B 71
	175/70R14	88H XL	4.5-(5.0)-6.0	560	50	D	B	B 71
15	195/50R15	86V XL	5.5-(6.0)-6.5	530	50	D	B	B 71
	175/55R15	77H	5.0-(5.5)-6.0	412	44	D	B	B 71
	185/55R15	82H	5.0-(6.0)-6.5	475	44	C	B	B 71
	195/55R15	89V XL	5.5-(6.0)-6.5	580	50	D	B	B 71
	175/60R15	81H	5.0-(5.5)-6.0	462	44	D	B	B 71
	185/60R15	88H XL	5.0-(5.5)-6.5	560	50	C	B	B 71
	195/60R15	88H	5.5-(6.0)-7.0	560	44	C	B	B 71
	165/65R15	81T	4.5-(5.0)-5.5	462	44	D	C	B 71
	165/65R15	81H	4.5-(5.0)-5.5	462	44	D	C	B 71
	175/65R15	88H XL	5.0-(5.0)-6.0	690	50	D	B	B 71
	185/65R15	88H	5.0-(5.5)-6.5	560	44	C	B	B 71
	185/65R15	92H XL	5.0-(5.5)-6.5	560	50	C	B	B 71
	195/65R15	95V XL	5.5-(6.0)-7.0	615	50	C	B	B 71
	195/45R16	84V XL	6.0-(6.5)-7.0	500	50	D	B	B 71
	16	205/45R16	87V XL	6.5-(7.0)-7.5	545	50	D	B
185/50R16		81V XL	5.0-(6.0)-6.5	462	44	D	B	B 71
195/55R16		91V XL	5.5-(6.0)-7.0	615	50	C	B	B 71
205/55R16		94V XL	5.5-(6.5)-7.5	670	50	C	B	B 71
215/55R16		97V XL	6.5-(7.0)-7.5	730	50	C	B	B 71
225/55R16		99V XL	6.0-(7.0)-8.0	775	50	D	B	B 71
185/60R16		86V	5.0-(5.5)-6.5	530	44	C	B	B 71
205/60R16		96V XL	5.5-(6.0)-6.5	710	50	C	B	B 71
215/60R16		99V XL	6.0-(6.5)-7.0	775	50	C	B	B 71
215/65R16		102V XL	5.5-(6.0)-6.5	850	50	C	B	B 71

Wet braking performance (%)



Wet braking distance (m) 80-20km/h



All sizes covered by M+S and 3PMSF (snowflake)

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
17	205/45R17	88V XL	6.5-(7.0)-7.5	560	50	D	B	B 71
	205/45ZR17	88W XL	6.5-(7.0)-7.5	560	50	D	B	B 71
	215/45R17	91V XL	(7.0)-7.5	615	50	D	B	B 71
	215/45ZR17	91W XL	(7.0)-7.5	615	50	D	B	B 71
	225/45R17	94V XL	7.0-(7.5)-8.0	670	50	C	B	B 71
	225/45ZR17	94W XL	7.0-(7.5)-8.0	670	50	C	B	B 71
	205/50R17	93V XL	6.0-(6.5)-7.0	650	50	D	B	B 71
	205/50ZR17	93W XL	6.0-(6.5)-7.0	650	50	D	B	B 71
	215/50R17	95V XL	6.5-(7.0)-7.5	690	50	D	B	B 71
	215/50ZR17	95W XL	6.5-(7.0)-7.5	690	50	D	B	B 71
	225/50R17	98V XL	6.5-(7.0)-7.5	750	50	C	B	B 71
	225/50ZR17	98W XL	6.5-(7.0)-7.5	750	50	C	B	B 71
	235/50R17	100V XL	7.0-(7.5)-8.0	800	50	C	B	B 71
	205/55R17	95V XL	6.0-(6.5)-7.0	690	50	C	B	B 71
	215/55R17	98V XL	6.5-(7.0)-7.5	750	50	C	B	B 71
18	215/55ZR17	98W XL	6.5-(7.0)-7.5	750	50	C	B	B 71
	225/55R17	101V XL	6.5-(7.0)-7.5	825	50	C	B	B 71
	225/55ZR17	101W XL	6.5-(7.0)-7.5	825	50	C	B	B 71
	235/55R17	103V XL	7.0-(7.5)-8.0	875	50	C	B	B 71
	225/40R18	92V XL	7.5-(8.0)-8.5	630	50	D	B	B 71
	225/40ZR18	92W XL	7.5-(8.0)-8.5	630	50	D	B	B 71
	245/40R18	97V XL	8.0-(8.5)-9.0	730	50	D	B	B 71
	245/40ZR18	97W XL	8.0-(8.5)-9.0	730	50	D	B	B 71
	225/45R18	95V XL	7.0-(7.5)-8.0	690	50	D	B	B 71
	225/45ZR18	95W XL	7.0-(7.5)-8.0	690	50	D	B	B 71
	235/45ZR18	98W XL	7.5-(8.0)-9.0	750	50	D	B	B 71
	245/45R18	100V XL	7.5-(8.0)-8.5	800	50	D	B	B 71
	245/45ZR18	100W XL	7.5-(8.0)-8.5	800	50	D	B	B 71
	225/50R18	99V XL	6.5-(7.0)-7.5	775	50	C	B	B 71
	225/50ZR18	99W XL	6.5-(7.0)-7.5	775	50	C	B	B 71
19	235/50R18	101V XL	7.0-(7.5)-8.0	825	50	C	B	B 71
	235/50ZR18	101W XL	7.0-(7.5)-8.0	825	50	C	B	B 71
	215/55R18	99V XL	6.0-(7.0)-7.5	775	50	C	B	B 71
	225/55ZR18	102W XL	6.0-(7.0)-8.0	850	50	C	B	B 71
	235/55R18	104V XL	7.0-(7.5)-8.0	900	50	C	B	B 71
	235/55ZR18	104W XL	7.0-(7.5)-8.0	900	50	C	B	B 71
	235/60ZR18	107W XL	6.5-(7.0)-8.5	975	50	B	B	B 71
	245/40ZR19	98W XL	8.0-(8.5)-9.5	750	50	C	B	B 71
	245/45ZR19	102W XL	7.5-(8.0)-9.0	850	50	C	B	B 71
	255/50R19	107V XL	7.5-(8.0)-8.5	975	50	C	B	B 71
	255/50ZR19	107W XL	7.5-(8.0)-8.5	975	50	C	B	B 71
	235/55R19	105V XL	7.0-(7.5)-8.0	925	50	C	B	B 71
	235/55ZR19	105W XL	7.0-(7.5)-8.0	925	50	C	B	B 71

CST

MEDALLION WINTER WCP1

SIGNIFICANTLY IMPROVES WINTER DRIVING SAFETY

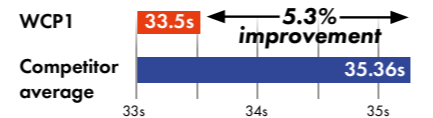
- Wide V-shape lateral grooves improve water dispersion and snow traction
- Uni-directional pattern design provides optimal handling performance
- Full-silica compound shortens braking distances for a safe journey
- Longitudinal interlocking jigsaw pattern improves carcass rigidity for better handling in winter conditions
- 3D zig-zag sipes increase the number of biting edges to improve grip in all road conditions



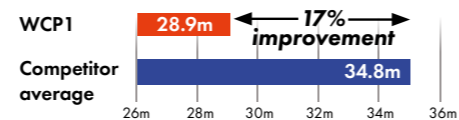
BEST OUT OF 16 CANDIDATES IN ALL THREE CATEGORIES

Tested by Tekniikan Maailma Finland

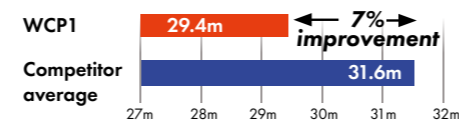
WET HANDLING – LAP TIME



WET BRAKING DISTANCE



DRY BRAKING DISTANCE



EXCELLENT BRAKING ABILITY,
SHORT BRAKING DISTANCES



SUPERB WINTER PERFORMANCE



All sizes covered by M+S
and 3PMSF (snowflake)



Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
13	155/65R13	73T	4.5-(4.5)-5.5	365	44	D	C	B 71
	155/70R13	75T	4.0-(4.5)-5.0	387	44	D	C	B 71
	155/80R13	83T XL	4.0-(4.5)-5.0	487	50	D	C	B 71
14	185/60R14	82T	5.0-(5.5)-6.5	475	44	D	B	B 71
	155/65R14	75T	4.5-(4.5)-5.5	387	44	D	C	B 71
	165/65R14	79T	4.5-(5.0)-6.0	437	44	D	C	B 71
	165/65R14	83T XL	4.5-(5.0)-6.0	487	50	D	C	B 71
	175/65R14	82T	5.0-(5.0)-6.0	475	44	D	B	B 71
	185/65R14	86T	5.0-(5.5)-6.5	530	44	D	B	B 71
	165/70R14	81T	4.0-(5.0)-5.5	462	44	D	C	B 71
15	175/70R14	88T XL	4.5-(5.0)-6.0	560	50	D	B	B 71
	185/55R15	86H XL	5.0-(6.0)-6.5	475	44	D	B	B 71
	195/55R15	89H XL	5.5-(6.0)-6.5	580	50	D	B	B 71
	175/60R15	81T	5.0-(5.5)-6.0	462	44	D	B	B 71
	185/60R15	88H XL	5.0-(5.5)-6.5	560	50	D	B	B 71
	195/60R15	88H	5.5-(6.0)-7.0	560	44	D	B	B 71
	175/65R15	88H XL	5.0-(5.0)-6.0	560	50	D	B	B 71
	185/65R15	88T	5.0-(5.5)-6.5	560	44	D	B	B 71
	195/65R15	91T	5.5-(6.0)-7.0	615	44	D	B	B 71
	195/65R15	95H XL	5.5-(6.0)-7.0	690	50	C	B	B 71
16	195/45R16	84V XL	6.5-(6.5)-7.0	500	50	D	B	B 71
	195/55R16	91V XL	5.5-(6.0)-6.5	615	50	C	B	B 71
	205/55R16	91H	5.5-(6.5)-7.5	615	44	C	B	B 71
	215/55R16	97V XL	6.5-(7.0)-7.5	730	50	C	B	B 71
	225/55R16	99H XL	6.0-(7.0)-8.0	775	50	C	B	B 71
	205/60R16	96V XL	5.5-(6.0)-6.5	710	50	D	B	B 71
	215/60R16	99V XL	6.0-(6.5)-7.0	775	50	C	B	B 71
	215/65R16	102V XL	6.0-(6.5)-7.0	850	50	C	B	B 71
	215/40R17	87V XL	7.0-(7.5)-8.0	545	50	D	B	B 71
	215/45R17	91V XL	(7.0)-7.5	615	50	D	B	B 71
	225/45R17	94V XL	7.0-(7.5)-8.0	670	50	D	B	B 71
	225/45Z17	94W XL	7.0-(7.5)-8.0	670	50	D	B	B 71
17	205/50R17	93V XL	6.5-(6.5)-7.0	650	50	D	B	B 71
	225/50R17	98V XL	6.5-(7.0)-7.5	750	50	C	B	B 71
	235/50R17	100V XL	7.0-(7.5)-8.0	800	50	D	B	B 71
	205/55R17	95V XL	6.5-(6.5)-7.0	690	50	C	B	B 71
	215/55R17	98V XL	6.5-(7.0)-7.5	750	50	C	B	B 71
	225/55R17	101V XL	6.5-(7.0)-7.5	825	50	-	B	B 71
	235/55R17	103V XL	7.0-(7.5)-8.0	875	50	C	B	B 71
	225/40R18	92V XL	7.5-(8.0)-8.5	630	50	D	B	B 71
	225/40Z18	92W XL	7.5-(8.0)-8.5	630	50	D	B	B 71
	245/40R18	97V XL	8.0-(8.5)-9.0	730	50	D	B	B 71
18	245/40Z18	97W XL	8.0-(8.5)-9.0	730	50	D	B	B 71
	225/45R18	95V XL	8.0-(8.5)-9.0	690	50	D	B	B 71
	225/45Z18	95W XL	7.0-(7.5)-8.0	690	50	D	B	B 71
	235/45R18	98V XL	7.5-(8.0)-8.5	750	50	-	B	B 71
	245/45R18	100V XL	7.0-(7.5)-8.0	800	50	D	B	B 71
	245/45Z18	100W XL	7.5-(8.0)-8.5	800	50	C	B	B 71
	225/50R18	99V XL	6.5-(7.0)-7.5	775	50	D	B	B 71
	225/50Z18	99W XL	6.5-(7.0)-7.5	775	50	C	B	B 71
	235/50R18	101V XL	7.0-(7.5)-8.0	825	50	C	B	B 71
	235/50Z18	101W XL	7.0-(7.5)-8.0	825	50	C	B	B 71
19	235/55R18	104V XL	7.0-(7.5)-8.0	900	50	C	B	B 71
	235/55Z18	104W XL	7.0-(7.5)-8.0	900	50	C	B	B 71
	255/50R19	107V XL	7.5-(8.0)-8.5	975	50	C	B	B 71
	255/50Z19	107W XL	7.5-(8.0)-8.5	975	50	C	B	B 71
	235/55R19	105V XL	7.0-(7.5)-8.0	925	50	C	B	B 71
	235/55Z19	105W XL	7.0-(7.5)-8.0	925	50	C	B	B 71

NEW

NEW

NEW



COMMERCIAL

VAN MASTER VR-M3

ENDURANCE IS ITS ENDURING QUALITY

- High rigidity of the shoulder provides excellent support to prevent deformation during commercial loading application
- Optimal bead filler with advanced material technology provides higher loading capacity and better heat diffusion
- A wider tread profile provides maximum contact with the road surface and avoids uneven tread wear for longer tire life
- New compound technology and advanced construction materials provide excellent comfort and handling while guaranteeing superior tread life
- Highly rigid tread ribs provide extra stability under high-speed conditions
- Three main grooves optimise the efficiency of water dispersion



OUTSTANDING ENDURANCE



LONGER TREAD LIFE



IMPROVED HIGH-SPEED HANDLING

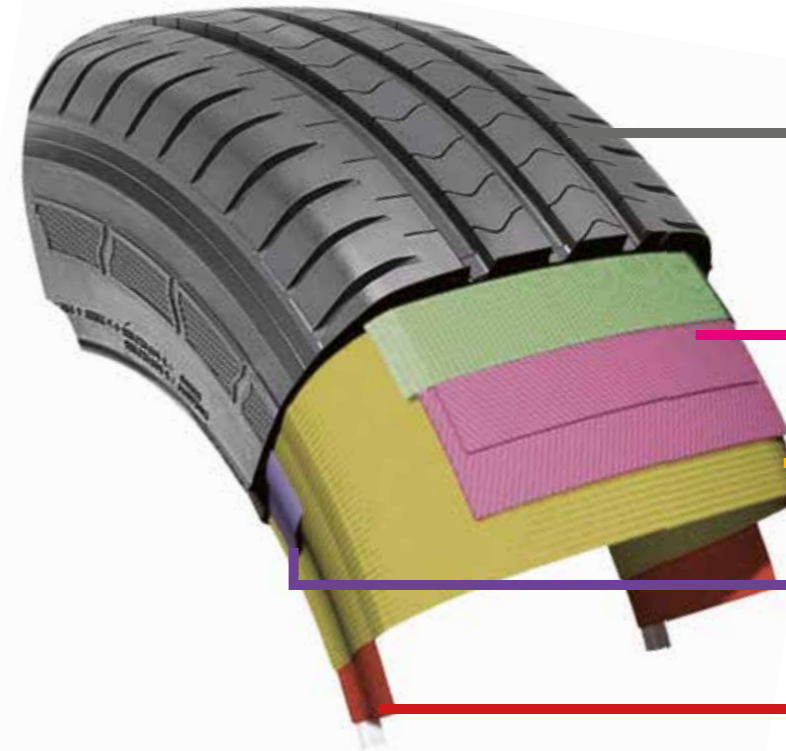


EXCELLENT WET AND DRY HANDLING AND BRAKING



A MORE COMFORTABLE DRIVING EXPERIENCE

VR-M3 ENHANCED STRUCTURE



Full silica tread compound delivers excellent traction and extra grip on wet road surfaces

New steel cord and body ply material technology deliver 9% improved tread stiffness for better high speed performance

Reinforced body polyester gives 40% improvement on durability

New generation compound in bead area for a better heat radiation

Enhanced bead filler with advanced material for higher loading capacity

VR-M3 SIDEWALL

3D diamond sidewall prevents scratching and cutting abrasions especially while kerbside road parking



Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)
14	185 R14C 8PR	102/100S	5.0-(5.5)-6.0	850 / 800	65
	195/70 R15LT 10PR	104/101S	5.5-(6.0)-6.5	900 / 825	80
15	205/70 R15C 8PR	106/104S	5.5-(6.0)-6.5	950 / 900	65
	215/70 R15C 8PR	109/107S	6.0-(6.5)-7.0	1030 / 975	65
16	195/75 R16LT 10PR	107/103T	5.0-(5.5)-6.0	975 / 875	80
	215/70 R16C 8PR	108/106T	6.0-(6.5)-7.0	1000 / 950	65
	215/75 R16LT 10PR	112/109T	5.5-(6.0)-6.5	1120 / 1030	80

VAN MASTER ALL SEASON ACT1

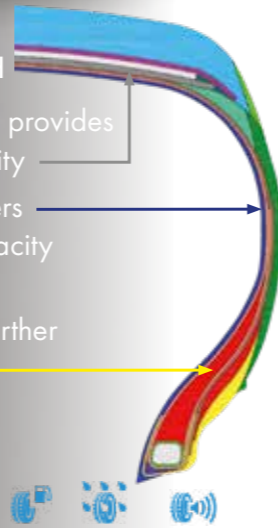
DURABLE AND STRONG TO TAKE THE STRAIN

- Three main grooves provide excellent water dispersal
- Wavy sipes on the shoulders deliver extra grip in the wet and snow
- Lateral grooves enhance wet handling
- Advanced silica compound improves wet braking performance
- Special pattern design reduces resonance for a quieter journey
- High-strength belt design provides safer driving and durability
- Highly rigid structure offers outstanding load capacity
- Low-heat-generation technology improves durability for long life



DURABILITY AND STRENGTH

- High-strength belt design provides safer driving and durability
- Highly rigid structure offers outstanding loading capacity
- Bead featuring low-heat generation technology further improves durability



All sizes covered by M+S and 3PMSF (snowflake)

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
15	195/70R15C	104/102T	5-(5.5)-6	S900/D850	65	D	A	B 71
	215/70R15C	109/107T	5.5-(6)-7	S1030/D975	65	C	A	B 73
	225/70R15C	112/110R	6-(6.5)-7	S1120/D1060	65	C	A	B 73
16	195/60R16C	99/97H	5.5-(6)-6.5	S755/D730	54	D	A	B 71
	215/60R16C	108/106T	6.0-(6.5)-7.0	S1000/D950	69	C	A	B 73
	205/65R16C	107/105T	5.5-(6.0)-6.5	S975/D925	69	C	A	B 71
	215/65R16C	109/107T	6.0-(6.5)-7.0	S1030/D975	69	C	A	B 73
	225/65R16C	112/110T	6.0-(6.5)-7.0	S1120/D1060	69	C	A	B 73
	235/65R16C	121/119T	6.5-(7.0)-7.5	S1450/D1360	83	C	A	B 73
	195/75R16C	110/108S	5.0-(5.5)-6.0	S1060/D1000	76	C	A	B 71
	205/75R16C	113/111S	5.0-(5.5)-6.0	S1150/D1090	76	-	A	B 71 NEW
	215/75R16C	116/114R	5.5-(6)-7	S1250/D1180	76	C	A	B 73
225/75R16C	121/120R	6-(6.5)-7	S1450/D1400	83	C	A	B 73	
17	225/55R17C	109/107H	6.5-(7.0)-7.5	S1030/D975	69	C	A	B 73
	215/60R17C	109/107T	6.0-(6.5)-7.0	S1030/D975	69	C	A	B 73

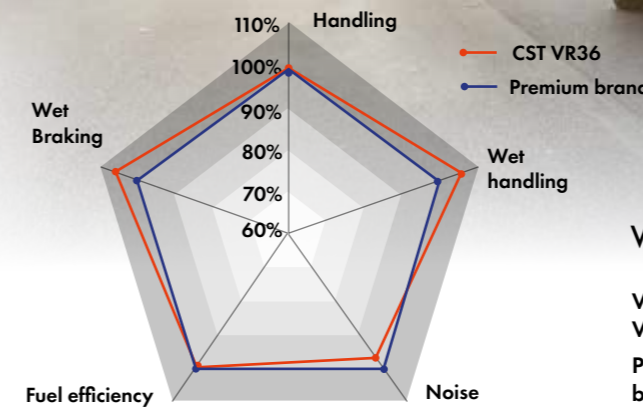
VAN MASTER VR36

SAFETY AND RELIABILITY WHATEVER THE LOAD

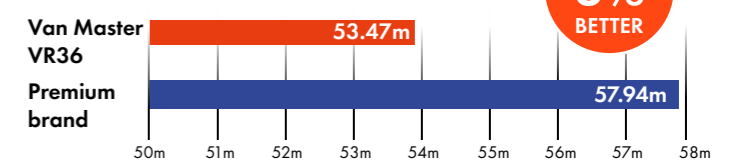
- New tread compound for longer lasting tires
- Advanced pattern designs prevent uneven wear and offer greater cutting resistance for improved durability
- Closed lateral shoulder grooves improve shoulder wear properties
- Highly rigid straight ribs offer good braking traction and an ideal contact area for straight-line stability
- The three main central lateral grooves help to disperse water efficiently for better handling on wet surfaces



VR36 PERFORMANCE CHARACTERISTICS



WET BRAKING PERFORMANCE



Tested by MAXXIS Proving Ground

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
14	185R14C	102/100R	5.0-(5.5)-6.0	S850/D800	65	C	A	B 72
	195R14C	106/104R	5.0-(5.5)-6.0	S950/D900	65	C	A	B 72
16	195/65R16C	104/102T	5.5-(6.0)-6.0	S900/D850	69	C	A	B 72
	205/65R16C	107/105T	5.5-(6.0)-6.5	S975/D925	69	C	A	B 72
	215/65R16C	109/107T	6.0-(6.5)-7.0	S1030/D975	69	C	A	B 72
	225/65R16C	112/110T	6.0-(6.5)-7.0	S1120/D1060	69	C	A	B 72
	235/65R16C	115/113R	6.5-(7.0)-7.5	S1215/D1150	69	C	A	B 72
17	235/65R16C	121/119R	6.5-(7.0)-7.5	S1450/D1360	84	C	A	B 72 NEW
	205/75R16C	113/111S	5.0-(5.5)-6.0	S1150/D1090	76	-	A	B 72 NEW
	225/55R17C	109/107H	6.5-(7.0)-7.5	S900/D850	69	-	A	B 72 NEW



CLO2

With its advanced pattern design featuring three main zigzagging grooves and high-rigidity steel belt construction, the CLO2 is engineered to make light work of heavy loads and deliver the traction, stability and durability you need. A new tread compound combines with the tread design to provide long life and greater cutting resistance.



CL31

Using an enhanced sidewall structure for a higher load capacity, the CL31 is a true transporter tyre. With a combination of an advanced casing structure and an excellent wear-resistant compound, the CL31 is made to be the ultimate option for any van or light truck.



CS105

The CS105 is everything you would look for in a van or light truck tyre. Developed to be long lasting and heavy-load bearing, you'll be able to carry whatever you want wherever you need to go.



CLO2

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Tread Depth (mm)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
12	140/70R12C 6PR	86J	4.0	6.2	530	62	C	C	B 72
	125R12	62S	3.5	5.2	265	44	-	-	-
	125R12C 8PR	81J	3.5	5.2	265	44	C	C	B 72
	145R12C 6PR	80/78N	4.0	7.0	450/425	50	C	C	B 72
	145R12C 8PR	86/84N	4.0	7.0	530/500	65	C	C	B 72
	155R12C 8PR	88/86R	4.0-(4.5)-5.0	7.7	560/530	65	C	C	B 72

CL31

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Tread Depth (mm)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
12	LT 5.00R12 8PR	83/81P	3.0-(3.5)-4.0	8.9	S485/D465	65	D	B	B 72
	LT 5.00R12 10PR	88/86P	3.0-(3.5)-4.0	8.9	S560/D530	75	-	-	-
13	LT 5.50R13 12PR	97/95P	(4.0)-4.5	9.0	S730/D690	97	D	B	B 72
	155R13C 8PR	91/89R	4.5-(4.5)-5.0	8.1	S615/D580	65	D	B	B 72
	165R13C 8PR	94/93N	4.5-(4.5)-5.0	8.5	S670/D650	65	D	B	B 72
	165/70R13C 6PR	88/86S	4.0-(5.0)-5.5	8.5	S560/D530	54	D	B	B 72
	175R13C 8PR	97/95N	4.5-(5.0)-5.5	8.6	S730/D690	65	D	B	B 72
14	175/70R14C 6PR	95/93S	4.5-(5.0)-5.5	9.2	S690/D650	54	D	B	B 72
	175/70R14C 8PR	99/98N	4.5-(5.0)-6.0	9.2	S775/D750	65	D	B	B 72
	175/75R14C 8PR	99/98S	4.5-(5.0)-5.5	9.2	S775/D750	69	D	B	B 72
	215/75 R14C 8PR	112/110Q	5.5-(6.0)-7	9.5	S1120/D1060	69	D	B	B 72
	6.50R14C 8PR	102/100N	(4.5)-5.0	10.8	S850/D800	65	D	B	B 72
	165R14C 8PR	97/95R	4.5-(5.0)-5.0	8.3	S730/D690	65	D	B	B 72
	175R14C 8PR	99/98N	4.5-(5.0)-5.5	9.0	S775/D750	65	D	B	B 72
	185R14C 8PR	102/100R	4.5-(5.5)-6.0	9.0	S850/D800	65	D	B	B 72
	195R14C 8PR	106/104R	5.0-(5.5)-6.0	9.4	S950/D900	65	D	B	B 72
	205R14C 8PR	109/107Q	5.0-(6.0)-6.5	9.8	S1030/D975	65	D	B	B 72
15	195/70R15C 8PR	104/102S	5.0-(6.0)-6.0	10.7	S900/D850	65	D	B	B 72
	205/70R15C 8PR	106/104R	5.5-(6.0)-6.5	11.0	S950/D900	65	D	B	B 72
	215/70R15C 8PR	109/107Q	5.5-(6.5)-7.0	10.7	S1030/D975	65	D	B	B 72
	225/70R15C 8PR	112/110Q	6.0-(6.5)-7.0	11.2	S1120/D1060	69	D	B	B 72
	225/70R15C 8PR	112/110Q	6.0-(6.5)-7.0	11.2	S1120/D1060	69	D	B	B 72
	185R15C 8PR	103/102Q	5.0-(5.5)-6.0	9.4	S875/D850	65	D	B	B 72
	195R15C 8PR	106/104R	5.0-(5.5)-6.0	9.5	S950/D900	65	D	B	B 72
	195R15C 8PR	106/104R	5.0-(5.5)-6.0	9.5	S950/D900	65	D	B	B 72
16	215/65R16C 8PR	109/107Q	6.0-(6.5)-7.0	11.1	S1030/D975	69	-	-	-
	195/75R16C 8PR	107/105R	5.0-(5.5)-6.5	9.5	S975/D925	69	D	B	B 72
	195/75R16C 10PR	110/108R	5.0-(5.5)-6.0	9.5	S1060/D1000	75	D	B	B 72
	205R16C 8PR	110/108Q	5.5-(6.5)-7.0	9.7	S1060/D1000	65	D	B	B 72
	215/75R16C 8PR	113/111R	5.5-(6.0)-7.0	9.4	S1150/D1090	69	D	B	B 72
	215/75R16C 10PR	116/114R	5.5-(6.0)-7.0	9.4	S1250/D1180	69	D	B	B 72
	LT235/85R16 10PR	120/116Q	6.0-(6.5)-7.5	11.5	S1380/D1260	81	D	B	B 72

CS105

Rim	Size	Load/Speed Rating	Approved Rim Width (in)	Tread Depth (mm)	Max Load (kg)	Max Pressure (PSI)	RR	WG	Noise dB
15	6.50R15 10PR	106/101N	(5.5)-6.0	10.7	S950/D825	81	C	B	A 68
	7.00R15 12PR	113/109N	(5.5)-6.0	10.9	S1150/D1030	97	C	B	A 68
16	6.50R16 10PR	107/102N	5.0-(5.5)	10.7	S975/D850	81	C	B	A 68
	6.50R16 12PR	110/105N	5.0-(5.5)	10.7	S1060/D925	97	C	B	A 68
	7.00R16 12PR	115/110N	(5.5)-6.0	11.1	S1215/D1060	97	C	B	A 68
	7.50R16 12PR	121/120N	5.5-(6.0)-6.5	10.4	S1450/D1400	97	C	B	A 68

TIRE SAFETY

Important tire information

When customers choose CST, they're getting a product designed to deliver safety along with performance. But even the best tires must be used with caution and with close attention to safe practices. Following the guidelines and recommendations below will help to reduce the chance of accident or injury.

Always refer to the vehicle's tire information placard.

- It is preferable to replace a vehicle's tires with ones that correspond to the vehicle's manufacturer-recommended specifications.
- Tire speed ratings and load-carrying capacity should always be equal to or greater than the original equipment tires.

Service Description

Most tires have a service description that appears at the end of the tire size. This service description has a two-digit number which represents the load index, and a letter which represents the speed rating.

Example: 86H. The load index represents the maximum load each tire is designed to carry at the tire's maximum inflation pressure.

Speed Rating

Speed ratings are certified sustained speed designations assigned to passenger car radials and high performance tires. In the U.S., these ratings are based on tire testing in laboratory conditions under simulated loads. For a tire to be speed-rated, it must meet certain minimum government standards for reaching and maintaining that specified speed. Any speed symbol denoting a fixed maximum speed capability will be at the end of the service description following the load index. Tire installers should refer to the vehicle's owner's manual to identify any tire speed rating restriction or recommendation that could affect the operation of the vehicle. If the replacement tires have a lower speed rating than what is specified as original equipment, the consumer should be aware that the vehicle's speed must be restricted to that of the replacement tires. CST does not recommend mixing tires of different speed ratings on a vehicle.

Note: Speed ratings apply only to the tire, not to the vehicle. Putting speed-rated tires on any vehicle does not mean that the vehicle can be operated at the tire's rated speed. Refer to the vehicle's operating manual for specific information.

Ply Rating vs. Load Range

- Ply ratings and load ranges denote the load capability and inflation limits of a given tire size when used in a specified type of service.
- **Ply Rating:** An older method of rating load capacity. These are shown as 4-ply rated, 6-ply rated, 8-ply rated, etc.
- **Load Range:** This is the current method of rating the tire's load-carrying capacity and is denoted by letters: B, C, D, E, etc.

Uniform Tire Quality Grade (UTQG)

The UTQG, which is required by the government, provides comparative manufacturer information. Tires are subjected to a series of government-mandated tests that measure performance of treadwear, traction and temperature resistance. All testing is done by the individual manufacturer.

- **Treadwear:** A measurement of tread durability. Tested against an industry standard, the assigned numerical grade indicates how well the tread lasts compared to a reference of 100. Actual wear depends on the conditions under which the tire is used. Driving habits, vehicle maintenance, road surface differences and climate variations all affect treadwear.
- **Traction:** A measurement of the tire's ability to stop on wet test surfaces of asphalt and concrete under controlled conditions. Traction grades are assigned by the UTQG system and branded on the sidewall of the tire. The traction grade is determined only for straight-ahead wet braking. It does not include cornering, which might be important for customer performance needs.
- **Temperature (resistance):** a measure of resistance to heat generation under normal operating conditions. The test is conducted under predetermined standards for inflation and loading. Excessive speed, under-inflation and overloading can all cause adverse heat build-up. Sustained high temperatures can reduce tire durability. Temperature grades are branded on the sidewall of the tire.

DOT (Department of Transportation) Certification

A DOT brand on the tire's sidewall indicates that the tire has been certified by the Department of Transportation. Following the DOT brand is a serial number that denotes the tire's manufacturer, the manufacturing plant, tire size code and date of manufacture. While consumer tire registration is voluntary, federal law requires that the selling dealer record the DOT identification numbers and provide the DOT registration form to the consumer.

Mounting Procedures

Be sure to observe the following when mounting CST tires:

- Lubricate both top and bottom beads with an approved lubricant. Never exceed 40 PSI to seat the beads.
- Both tire beads should be securely seated on the rim.
- Always replace a tire with another tire of the same bead diameter designation and suffix letters.

A new valve stem should be installed in the rim each time a worn tire (passenger or light truck) is replaced.

- Never put any flammable substance in the tire/rim assembly at any time. Never use any flammable substance in a tire/rim assembly and attempt to ignite in order to seat the beads.
- Be sure that the wheel is securely seated on the hub face.
- Do not stand, lean or reach over the assembly during inflation.
- Be sure that all lug nuts have been properly torqued to the manufacturer's specifications.
- Be sure that there is no build-up of dirt or debris between the hub and the wheel.

- Be sure that the wheel is not bent or damaged.

The wheel should not be used if:

- The flange is bent.
- The welds or rivets are leaking.
- The stud holes are elongated (rather than round).
- The wheel has more than 1/16" radial or lateral run-out.

- Matching tires on four-wheel drive and all-wheel drive vehicles: special attention should be paid to ensure that all four tires are closely matched in height and width to avoid strain and possible damage to the vehicle. Tire inflation pressure also affects the tire's rolling circumference and should be matched according to the vehicle manufacturer's recommendations. Always check the vehicle manufacturer's recommendations prior to installing new tires.

Warning: Improper mounting, under-inflation, overloading or tire damage may result in tire failure, which may lead to serious injury or death. Tire and rim sizes must correspond for proper fit and application.

Warning: Tire changing can be dangerous and should be done only by trained persons using proper tools and procedures as established by the Rubber Manufacturers Association. Failure to comply with proper procedures may result in incorrect positioning of the tire or wheel assembly which could cause the assembly to explode with enough force to cause serious physical injury or death. Never mount or use damaged tires.

If replacing fewer than four tires:

It is always preferred and CST recommends that **ALL FOUR** tires be replaced at the same time to optimize vehicle performance. In those cases where it is not feasible to install four new tires at the same time, some general guidelines are below. However, if the vehicle manufacturer has alternate recommendations, always follow those guidelines.

Replacing two tires:

When only two new tires are purchased, they should be installed on the rear axle, as long as the new tires have a speed rating equal to or greater than the speed rating as compared to the front tires. Generally, new tires will provide better grip and evacuate water more effectively, which is important when a driver encounters hydroplaning situations. When placed on the rear axle, new tires or tires with deeper tread depth than the front tires provide greater traction on wet surfaces. This can also help prevent a possible oversteer condition and loss of vehicle stability.

Replacing one tire:

While not recommended, if a single tire replacement is unavoidable, it is best to pair the new tire with the tire that has the deepest tread, and that both be placed on the rear axle. When placed on the rear axle, new tires or tires with deeper tread depth than the front tires provide greater traction on wet surfaces. This can also help prevent a possible oversteer condition and loss of vehicle stability.

Tire Speed Rating Chart

The rating system shown below displays the top speed for which a tire is certified. It does not indicate the total performance capacity of a tire. This information will not be found on all tires. The speed rating denotes the speed for which a tire was designed to be driven for extended periods.

For tires having a maximum speed capability above 149 mph (240 km/h), a "ZR" may appear in the size designation. For tires having a maximum speed capability above 186 mph (300 km/h), a "ZR"

must appear in the size designation, including a "Y" speed symbol in brackets.

Example: P275/40R17 93W at 168 mph (270km/h) or P275/40ZR17 at above 149 mph (240 km/h).

Rating Symbol	Speed (km/h)	Speed (mph)	Rating Symbol	Speed (km/h)	Speed (mph)
B	50	31	P	150	93
C	60	37	Q	160	99
D	65	40	R	170	106
E	70	43	S	180	112
F	80	50	T	190	118
G	90	56	U	200	124
J	100	62	H	210	130
K	110	68	V	240	149
L	120	75	W	270	168
M	130	81	Y	300	186
N	140	87	ZR	Over 240	Over 150

ALL THE TIRES IN THIS CATALOG ARE TUBELESS.

TIRE SAFETY

Riding on worn tires can cause loss of traction, leading to an accident and possible serious injury. Replace your tires when there is only 2/32" of tread depth remaining. All DOT-approved tires have a tread-wear indicator bar woven into the tread pattern. While this small piece of rubber appears to be a bridge between the two tire grooves, it is only 2/32" high. When the top of this indicator bar is even with the plane of the tread pattern, replace your tires.

Another way to judge this indicator: Stick a penny, head down, in the tread. Seeing the top of Lincoln's head means that you're down to 2/32" and your tires must be replaced.

For optimum safety, especially in wet conditions, replace your tires when you have 4/32" of tread remaining.

Always choose the original size or the size recommended by your manufacturer when replacing your tires. Replacing tires of different speed ratings, sizes or construction could lead to improper tire performance, tire failure and accident, causing possible serious injury or death.

Changing the size of your tire's height, width, load capacity and/or tread design can change your tire's performance.

If you must use tires of differing profiles, mount the widest tires on the rear of the vehicle.

Don't mix radial and non-radial tires. If you mix radial and non-radial tires, you may have trouble with consistent handling. Handling problems can lead to loss of vehicle control, accidents, injuries and death.

If you must measure the width of your tires, be sure that the tires are mounted on a rim recommended by the Tire and Rim Association (T&RA) at the specified tire pressure.

TIRE SAFETY

Depending on a tire's construction, if a tire is mounted on too narrow or too wide a rim, the tire's profile will be changed. The resulting change can unbalance and stress the tire's body and lead to poor performance, tire failure, accidents, injury and/or death.

Never use P-metric automotive tires as replacements for light truck tires or on a vehicle equipped with dual-rear tires. Each tire is manufactured with a specific speed rating and load requirements to ensure proper vehicle use.

Damaged or incorrectly mounted tires can suddenly fail, causing serious injury or death. Tires should only be repaired by professionals.

NEVER OVERLOAD YOUR TIRES: Overloading can cause a range of problems – everything from poor handling and poor mileage to failure of vehicle components or tire failure. Tire failure can cause accidents, leading to serious injuries and death. Check your owner's manual to be sure that you're within safety limits for the load your tires can handle. If you're having tires mounted, be sure to check the load limit of the tires to be mounted. The load index of the replacement tires should always meet or exceed the maximum load of the original tires.

Proper tire inflation is essential! Your vehicle cannot handle its load without the right amount of air pressure – and the results could be disastrous, including accidents, serious injuries and death. Most tire failures are caused by under-inflation. Proper inflation is also essential for your vehicle's performance. Unless your tires are properly inflated, you won't get the best gas mileage from your vehicle. In fact, you could lose as much as 5% of your car's optimum mileage by failing to properly inflate your tires.

Check your tire pressure at least once a month, and always check before long trips. Use a tire gauge, and be sure that your tires are still cold when you check them. If your vehicle still has its original tires, use the optimum pressure specified by the vehicle manufacturer as a guide. If you've replaced your tires, check with your dealer regarding optimum tire pressure.

REMEMBER: Your tires can be under-inflated long before you can see or feel any change. Don't trust your eyes, and don't trust your vehicle's feel; trust a tire gauge.

NEVER SPIN YOUR TIRES: Being stuck in mud or snow can be frustrating – but if you spin your tires, being stuck can be dangerous. Your tire might be spinning much faster than your speedometer indicates, causing injury or death as well as damage to your vehicle. A tire spinning off the ground presents an equal or greater hazard.

NEVER STAND BEHIND OR CLOSE TO A SPINNING TIRE. Excess speed is a danger to your tires, your vehicle and your safety. Driving above the speed limit can stress your tires, leading to sudden tire failure.

Remember that a mini-spare tire is a temporary fix, and is **NOT** designed to be ridden for long periods of time! NEVER drive over 50 miles per hour when using a mini-spare tire. Have a new tire installed as soon as possible. Check the inflation in your spare tire as well. Spare tires lose air pressure over time. You don't want to discover that

your spare tire is under-inflated when you need it most.

You should also periodically replace your spare to prevent damage from aging.

Tire maintenance and information

Avoid irregular tire wear, which can contribute to poor tire performance and tire failure! Failing to rotate your tires at least every 6000-8000 miles also means that you'll have to replace them much more quickly. Always refer to your owner's manual for the rotation schedule and pattern specific to your vehicle.

Unbalanced tires, which can be caused by hitting curbs, potholes or other road hazards, affect your ride quality and tire life. You can usually detect an unbalanced tire through vibrations in the steering wheel at certain speeds. If you suspect that your tires may be unbalanced, have them inspected by a professional as soon as possible to avoid excessive wear and damage to your vehicle's front end parts.

Improper alignment will affect your car's tire wear, gas mileage, stability and overall performance. Even if you haven't noticed a problem, you should still have your car or truck aligned at least once a year as part of a regular maintenance program. If you think your vehicle might be out of alignment, your vehicle must be inspected by a professional as soon as possible. Have your tires inspected immediately if you notice any warning signs of improper alignment, which include the following:

- Excessive or uneven wear
- Steering wheel pulling to the left or right
- Feeling of looseness or wandering
- Steering wheel vibration or shimmy
- Steering wheel isn't centered when car is moving straight ahead

If you will not be using your tires for a long period, don't leave them on your vehicle. Store unused tires in a cool, dry place away from sunlight and other elements which can accelerate tire aging over time.

If you're using winter or snow tires, have them mounted on all four wheels. Using winter or snow tires only on the front of your vehicle is extremely dangerous and could lead to handling problems, loss of vehicle control, accident, injury and death. Keep tires looking their best by cleaning with a mild soap or detergent and a semi-soft bristle brush. Rinse with clean, plain water.



Abnormal Tread Wear

Tread wear issues appear as flat spots, or areas of rapid wear on the tire. They can also be seen as deformed tread blocks or cracking in the tread area. This type of wear is usually a result of brake problems, suspension or alignment problems, an unbalanced tire and wheel assembly, or misuse.



Sidewall Damage

Sidewall damage appears as cuts, tears, bubbles, or scrapes anywhere along the sidewall of the tire. This type of damage usually occurs when a tire encounters a road hazard. This could include anything from a curb to a bolt or piece of metal. Sharp objects or very concentrated stresses usually cause cuts and tears. Bubbles and scrapes occur due to impact damage or prolonged abrasion.



Tire Separations

Separations appear as bulges on the shoulder or tread face, or as localized wear above the separated region. A groove worn along the shoulder could be a sign of separation. Separations are mainly caused by abnormal heat build up. Excessive heat can build up during prolonged high speed driving, overloaded or under-inflated tire conditions. Separations can also be caused by penetration of water or foreign materials into the carcass of the tire. This material enters through cuts caused by road hazards.



Road Hazard

Road Hazard Damage appears as protruding objects or cuts in the tire. Misuse or neglect appears as wrinkles in the inner liner or scuffing that extends around the circumference of the tire. Road hazard damage occurs when a sharp object comes in contact with the tire. Misuse and neglect can occur to severely under-inflated tires or to tires with insufficient clearance between the tire and fenders. It can also occur when dual axle tires are overloaded, or there is not enough clearance between the two tires of the assembly.



Puncture – Normally, the only evident of a puncture will be a cut that extends from the tread of the tire through the inner liner.

Under-Inflated Tire – An abrasion may run around the circumference of the tire and wrinkles may be observed in the inner liner.

Bead Problems

Bead Problems appear as a broken bead, chafing of the rubber around the bead, or deformation of the bead area. A broken bead can occur when a tire is mounted on an improper rim or carelessly mounted or dismounted. Bead chafing can occur when mounting a tire on a dirty or mismatched rim, or when the tire is in an overloaded or under-inflated condition. A bent or deformed bead usually occurs when the tire is improperly stored, or excessive stress is applied to the bead area during mounting.

