

2022
2023

KUMHO TYRE Pattern Digest

KUMHO TYRE
All-Ways. Go With you

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YOUR SMART MOBILITY PARTNER

Mobility has become the new standard of the car industry. In tandem with the paradigm shift, Kumho Tire is preparing for an innovative mobility experience for the coming decades. Our business model goes beyond our tire business—where we have earned time-honored credibility and trust by countless customers, stakeholders, and global partners—into future-oriented, technology-based mobility products and services. Furthermore, an innovation thread will weave itself into our experienced know-how in technology. The resultant global top-tier future technologies will accelerate our drive to become one of the world's top 10 tiremakers again as we transform into a mobility business.



Brand Guide

ECSTA



This is an exclusive sports brand, engineered with ultra high formula technology to provide stable steering response and incredible performance in high speed driving.

V730, PS91, PS71, PS71 suv, HS52, HS51

CRUGEN



CRUGEN is all-new premium SUV Brand that offers high quality comfort and best steering stability in on-road conditions.

HP91, HP71

SOLUS



SOLUS offers an exclusive brand feel with incredible ride comfort quality.

HA32, HA32 suv, HA31

ROAD VENTURE



This is an authentic SUV brand for freedom and adventure in both on and off road applications.

AT52, AT61, MT51

PorTran



This is an exclusive LCV brand, optimized for powerful, low-weight vehicles, providing performance and durability in any road or seasonal condition.

KC53, CX11, CW51, CW11

ecowing



This brand focuses on fuel efficiency and ecofriendliness, comprised of Kumho Tire's unique technology to offer minimized CO2 emissions and increased mileage.

ES31

WINTERCRAFT



Made for winter performance, this brand offers stability and reliability in snowy and icy road conditions.

WP72, WP52, WP51, Wi32, Wi31+, Wi51, WS71, WS31, WS51

Magazine Test Results

ADAC motorwelt

<http://www.adac.de/>

- Country : Germany
- Circulation(Cycle) : 13,400,000(Monthly)
- General Info. : ADAC is Germany's and Europe's largest automobile club with over 15,000,000 members. ADAC Motorwelt is published by the ADAC organization and features articles such as product tests and safe driving tips.



Auto zeitung

<http://www.autozeitung.de/>

- Country : Germany
- Circulation(Cycle) : 159,001(Biweekly)
- General Info. : Auto Zeitung, one of four Automobile magazines in Germany, features articles on testing, technology and safety issues relative to motor sports.



Auto Bild

<http://www.autobild.de/>

- Country : Germany
- Circulation(Cycle) : 603,091(Weekly)
- General Info. : The best-selling automotive title in Germany, is also available in 33 countries. Auto bild features information on important trends in motor vehicles and is know for its articles on road trials and competitive testing.



Auto Bild sportscars

<http://www.autobild.de/sportscars/>

- Country : Germany
- Circulation(Cycle) : 70,000(Monthly)
- General Info. : Dedicated to Sports Car enthusiasts, a sub brand of the globally recognized Auto Bild.



Technical World

<http://www.teknikensvarld.se/>

- Country : Sweden
- Circulation(Cycle) : 113,834(Monthly)
- General Info. : The leading motor magazine in Sweden, known for their thorough automobile tests, it features news, reviews and test drives of passenger cars.



Za Rulem

<http://www.zr.ru/>

- Country : Russia
- Circulation(Cycle) : 360,000(Monthly)
- General Info. : The most authoritative and mass car magazine in Russia, it features all aspects of the Russian automobile market including news, trends and perspectives of technology.



4x4 Magazine

<http://www.4x4i.com/>

- Country : U.K.
- Circulation(Cycle) : 30,000(Monthly)
- General Info. : The market leader in automotive off-roading, features essential buying and practical information on all core 4x4 vehicles.



Auto Bild allrad

<http://www.autobild.de/allrad/>

- Country : Germany
- Circulation(Cycle) : 146,485(Monthly)
- General Info. : This is the Europe's largest four wheel drive (SUV/TL) magazine that presents global off road information monthly. It presents not only in depth test information and professional advice but also feedback of SUV/TL lovers, comparative test, component and industrial news.



ACE Lenkrad

<http://www.ace-online.de/ace-lenkrad/>

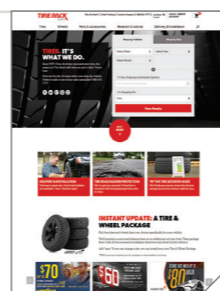
- Country : Germany
- Circulation(Cycle) : 550,000(Monthly)
- General Info. : ACE (Auto Club Europa) is Germany's second largest automobile club for motorists with 580,000 members. ACE Lenkrad is the club magazine with general information about automobile including product tests.



TIRE RACK

<http://www.tirerack.com/>

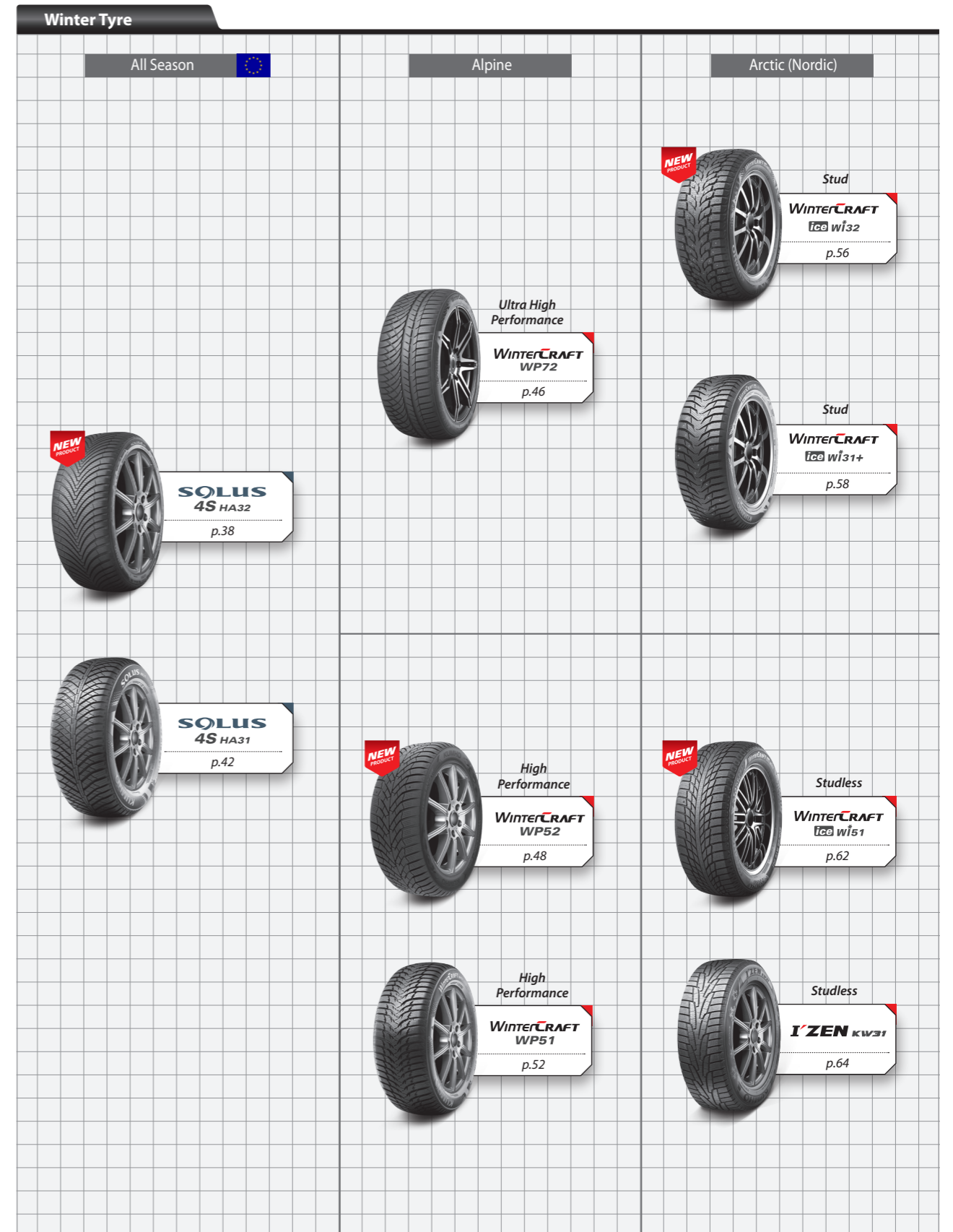
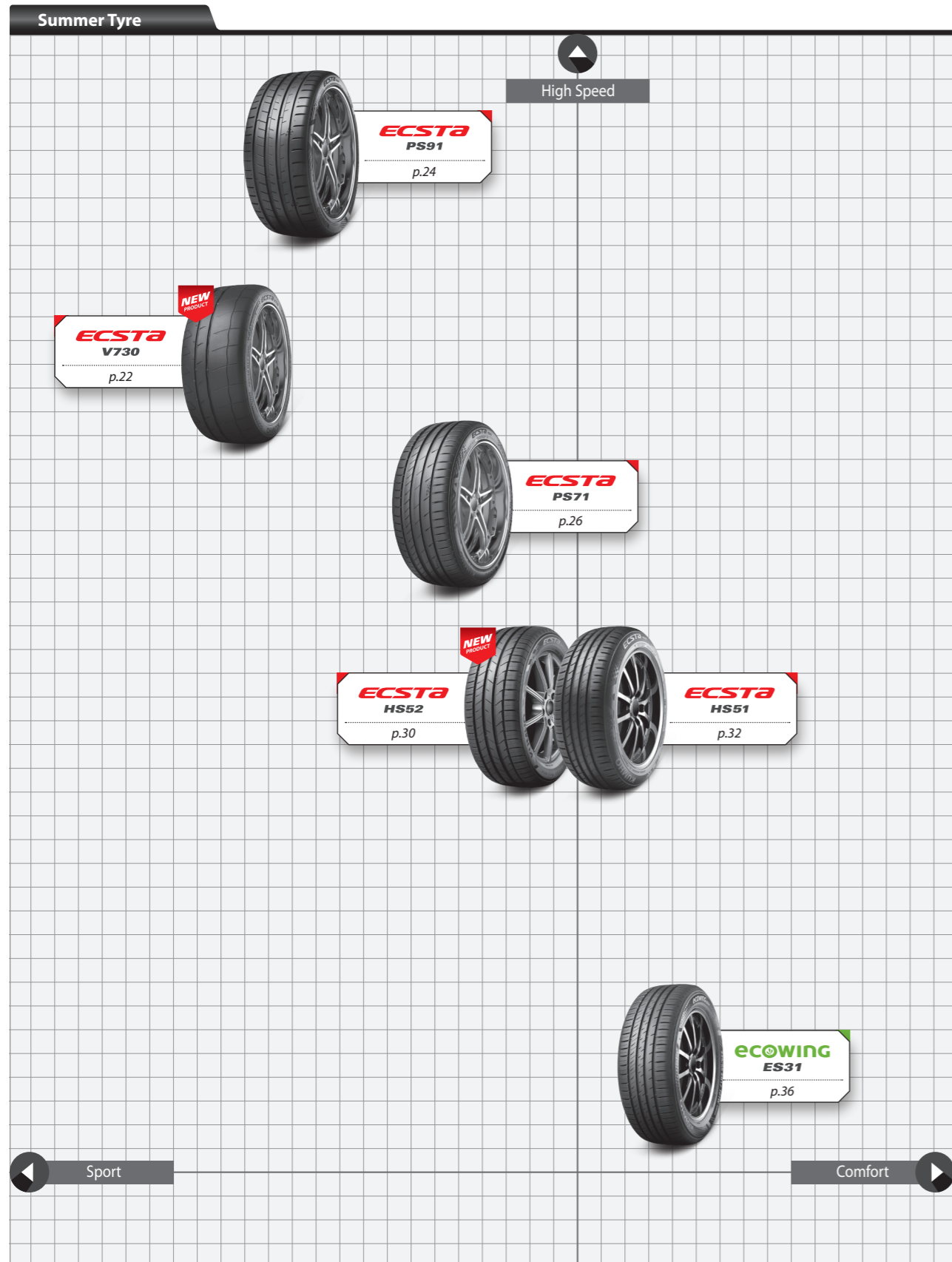
- Country : USA
- General Info. : This is the largest US online tire sales site with 2.5 million monthly hit records. It equips own proving ground and professional evaluators and the announced evaluation result has high influences to tire consumers and dealers worldwide.



Brand	Product	Size	Magazine	Test Result	Publication	Remark
ECSTA	PS71	225/50R17 Y	ADAC motorwelt	Good (Ranking 3)	2021.03	
		225/40R18 Y	ADAC motorwelt	Satisfactory	2020.03	
		235/45 R18 Y	ACE	Ranking 2	2018.03	
	HS51	205/55R16 V	Auto Bild	Exemplary (Ranking 1, Winner)	2021.03	
		205/55R16 V	ADAC motorwelt	Satisfactory (Ranking 4)	2021.03	
		205/55R16 V	Auto Express	Ranking 4	2017.07	
PA51	245/40R18 W	Tirerack	Ranking 1	2020.04		
Majesty SOLUS TAD7	TA91	225/50R17 W	Tirerack	Ranking 1	2020.04	
SOLUS	TA11	215/60R16 T	Consumer Reports	Ranking 5	2015.09	
	HA32	205/55R16 V	Auto Bild	Satisfactory	2020.20	
ecowing	KH27	185/65R15 H	ADAC motorwelt	Good	2016.02	
WinterCRAFT	WP71	235/55R17 V	ACE	Recommendale	2017.10	
	WP51	205/55R16 H	ADAC motorwelt	Satisfactory	2018.09	
	HP91	235/60R18 V	Technical World	Ranking 3	2017.04	
CRUGEN	HP71	245/60R18 V	Consumer Reports	Ranking 3	2021.06	
	KL33	P265/70R17	Consumer Reports	Ranking 2	2017.06	
	HT51	P265/70R17 T	Consumer Reports	Ranking 5	2021.06	
PorTran	KC53	215/65R16C	ADAC motorwelt	Ranking 7	2019.02	
WinTr PorTran	CW51	215/65R16C	ADAC motorwelt	Ranking 7	2019.09	

Positioning Map

Passenger Car
PKW
Tourisme
Pneus de Turismo
Turismo
Легковой автомобиль



Product Line Up

Passenger Car
PKW
Tourisme
Pneus de Turismo
Turismo
Легковой автомобиль

■ The following data can be changed by the manufacturer without prior notice and differently applied by regions.



Summer

Ultra High Performance



p.22 **ECSTA V730** p.24 **ECSTA PS91** p.26 **ECSTA PS71** p.30 **ECSTA HS52**



All Season

High Performance



p.32 **ECSTA HS51** p.36 **ECOWING ES31**

High Performance



p.38 **SOLUS 4S HA32** p.42 **SOLUS 4S HA31**



Winter

Alpine



p.46 **WINTERCRAFT WP72** p.48 **WINTERCRAFT WP52** p.52 **WINTERCRAFT WP51**

Arctic Stud



p.56 **WINTERCRAFT ICS WI32** p.58 **WINTERCRAFT ICS WI31+**

Arctic Studless



p.62 **WINTERCRAFT ICS WI51** p.64 **I'ZEN KW31**

PC

Size List

Passenger Car
PKW
Tourisme
Pneus de Turismo
Turismo
Легковой автомобиль



	V730	PS91	PS71	HS52	HS51	ES31	HA32	HA31	WP72	WP52	WP51	Wi32	Wi31+	Wi51	KW31
21"															
275/30R21		98(Y) XL													
20"															
305/30R20		103(Y) XL													
295/30R20		101(Y) XL													
295/35R20		105(Y) XL													
285/30R20		99(Y) XL													
285/35R20		104(Y) XL													
275/30R20		97(Y) XL	97Y XL						97W XL						
275/35R20		102(Y) XL	102Y XL						102W XL						
275/40R20		106(Y) XL													
265/35R20		99(Y) XL							99V XL						
265/40R20		104(Y) XL							104W XL						
255/30R20			92Y XL												
255/35R20		97(Y) XL	97Y XL												
255/40R20		101(Y) XL													
255/45R20							105W XL								
245/30R20		90(Y) XL	90Y XL												
245/35R20		95(Y) XL	95Y XL						95W XL						
245/40R20		99(Y) XL	99Y XL						99W XL						
245/45R20		103(Y) XL							103V XL						
245/50R20															
235/30R20			88Y XL												
235/35R20		92(Y) XL													
225/35R20			90Y XL												
195/55R20							95H XL								
19"															
305/30R19	102W XL	102(Y) XL													
295/30R19		100(Y) XL	100Y XL												
295/35R19			104Y XL												
285/30R19		98(Y) XL													
285/35R19		103(Y) XL													
285/40R19		107(Y) XL													
275/30R19		96(Y) XL	96Y XL						96W XL						
275/35R19	96W	100(Y) XL	100Y XL												
275/40R19		105(Y) XL	105Y XL						105W XL						
265/30R19		93(Y) XL	93Y XL												
265/35R19		98(Y) XL	98Y XL						98W XL						
255/30R19		91(Y) XL													
255/35R19		96(Y) XL	96Y XL												

XL : Extra Load
(Y) : Size indication for YR exceeding products

Size List

Passenger Car
PKW
Tourisme
Pneus de Turismo
Turismo
Легковой автомобиль



	V730	PS91	PS71	HS52	HS51	ES31	HA32	HA31	WP72	WP52	WP51	Wi32	Wi31+	Wi51	KW31
255/40R19		100(Y) XL	100Y XL												
255/45R19		104(Y) XL													
245/30R19			89Y XL												
245/35R19	93W XL	93(Y) XL	93Y XL												
245/40R19		98(Y) XL	98Y XL												
245/45R19		102(Y) XL	102Y XL												
245/50R19															
235/35R19	91W XL	91(Y) XL	91Y XL												
235/40R19			96Y XL												
235/45R19								99W XL							
235/50R19								103W XL							
225/35R19		88(Y) XL	88Y XL												
225/40R19		93(Y) XL	93Y XL												
225/45R19			96Y XL					96W XL							
205/55R19								97V XL							
18"															
285/30R18															
285/35R18		101(Y) XL	101Y XL												
275/35R18	95W	99(Y) XL													
275/40R18		103(Y) XL													
275/45R18			103Y												
265/35R18	97W XL	97(Y) XL	97Y XL												
265/40R18		101(Y) XL	101Y XL												
255/35R18	94W XL	94(Y) XL	94Y XL												
255/40R18		99(Y) XL	99Y XL												
255/45R18			103Y XL												
255/55R18															109R XL
245/35R18		92(Y) XL	92Y XL												
245/40R18	97W XL	97(Y) XL	97Y XL / 93Y(XRP)				97W XL			97W XL		97T XL	97T XL	97T XL	
245/45R18		100(Y) XL	100Y XL / 96Y(XRP)	100W XL			100W XL			100V XL		100T XL	100T XL	100T XL	
245/50R18			100Y / 100Y(XRP)											104T XL	
235/40R18	95W XL	95(Y) XL	95Y XL				95W XL			95W XL			95T XL	95T XL	
235/45R18			98Y XL	98W XL	98W XL		98W XL			98V XL		98T XL	98T XL		
235/50R18			101Y XL / 97V(XRP)							101V XL		101T XL	101T XL	101T XL	101R XL
235/55R18															104R XL
235/60R18															107R XL
235/65R18															
225/35R18			87Y XL												
225/40R18	92W XL	92(Y) XL	92Y XL / 88Y(XRP)				92W XL	92V XL		92W XL		92T XL	92T XL	92T XL	92R XL
225/45R18		95(Y) XL	95Y XL / 91Y(XRP)				95W XL	95V XL		95V XL		95T XL	95T XL	95T XL	95R XL

XRP : eXtended Run-flat Performance

XL : Extra Load
(Y) : Size indication for YR exceeding products

Size List

Passenger Car
PKW
Tourisme
Pneus de Turismo
Turismo
Легковой автомобиль



	V730	PS91	PS71	HS52	HS51	ES31	HA32	HA31	WP72	WP52	WP51	Wi32	Wi31+	Wi51	KW31
225/50R18							99W XL								
225/55R18							102V XL					102T XL			
225/60R18															
215/40R18			89Y XL												
215/45R18			93Y XL												
215/50R18							92W								
215/55R18												99H XL			
17"															
275/40R17															116R XL
265/65R17															
255/40R17	98W XL		94Y / 94W(XRP)												
245/40R17	91W		95Y XL												
245/45R17	99W XL		99Y XL		95W		99W XL					99T XL	99T XL	99T XL	
245/50R17															
245/55R17															
235/45R17	94W		97Y XL / 94Y	97W XL	97W XL		97W XL	97V XL				97T XL	97T XL	97T XL	
235/50R17															
235/55R17				103W XL	103W XL					103V XL		103T XL	99H	103T XL	103R XL / 99R
235/60R17							106V XL								
235/65R17							104V						108T XL		108R XL
225/45R17	94W XL		94Y XL / 91Y / 91W(XRP)	91W	94W XL / 91W	91W	94W XL	94V XL		94V XL / 91H		94T XL	94T XL	94T XL	94R XL
225/50R17			98Y XL / 94W(XRP)	98W XL	98W XL / 94W	98W XL	98V XL	98V XL		98V XL / 94H		98T XL	98T XL	98T XL	98R XL
225/55R17			97Y / 97Y(XRP)	101W XL	101W XL	101W XL	101W XL	101V XL		101V XL		101T XL	101T XL	101T XL	101R XL
225/60R17											99H				103R XL
225/65R17															106R XL
215/40R17			87Y XL		87W XL						87V XL				
215/45R17	91W XL		91Y XL	91W XL	91W XL		91V XL	91V XL					91T XL		91R XL
215/50R17			95W XL	95W XL	95W XL / 91W		95W XL	95V XL			95H XL	95T XL	95T XL	95T XL	
215/55R17			94W	98W XL	94W		98W XL	98V XL		98V XL		98T XL	98T XL	98T XL	98R XL
215/60R17				100V XL							96H	100T XL			96R
215/65R17				99V			103V XL					103T XL			
205/40R17			84Y XL		84W XL										
205/45R17			88Y XL / 84V(XRP)		88W XL		88V XL	88V XL		88V XL			88T XL		
205/50R17			93Y XL / 93W XL(XRP)		93W XL	93W XL	93W XL	93V XL		93V XL		93T XL	93T XL	93T XL	93R XL
205/55R17			91W	95V XL	95V XL / 91V	91W	95V XL	95V XL		95V XL		95T XL	95T XL	95T XL	
195/40R17															
195/45R17															
16"															
255/65R16															
245/70R16															111R XL

XRP : eXtended Run-flat Performance

XL : Extra Load

Size List

Passenger Car
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Легковой автомобиль



	V730	PS91	PS71	HS52	HS51	ES31	HA32	HA31	WP72	WP52	WP51	Wi32	Wi31+	Wi51	KW31
235/55R16															
235/60R16					104V XL						100H		104T XL	104T XL	100R
235/65R16															
235/70R16															106R
225/50R16	92W				92W / 92V										
225/55R16				99W XL / 95W	99W XL / 95W		99V XL	99V XL		99V XL			99T XL	99T XL	
225/60R16				98W	98W			102H XL			102V XL		102T XL		102R XL / 98R
225/65R16															
225/70R16															107R XL
215/40R16					86W XL										
215/45R16				90V XL	90V XL		90V XL				90V XL	90V XL			
215/55R16				97W XL / 93V	97W XL / 93W / 93V		97V XL	97H XL		97H XL	97H XL / 93H	97T XL	97T XL	97T XL	97R XL
215/60R16					99W XL	99V XL / 95V	99V XL	95H		99H XL	99H XL	99T XL	99T XL	99T XL	99R XL
215/65R16						98H	102V XL	98H		98H	98H	102T XL	98T		102R XL
215/70R16															100R
205/45R16			87W XL		87W XL		87V XL	83H		87H XL	87H XL				
205/50R16				87W	87W / 87V		87V				87H				
205/55R16	91W		91W(XRP) / 91V(XRP)	94W XL / 94V XL / 91W / 91V	94W XL / 94V XL / 91W / 91V	94V XL / 94H XL / 91V / 91H	94V XL / 91H	94V XL / 91H		94V XL / 91H / 96H XL / 92H	94H XL / 91V / 91H / 91T / 91H(XRP)	94T XL	94T XL / 91T	94T XL	91R
205/60R16				96W XL		92H	96V XL	96V XL / 92H		95H	96H XL / 92H	96T XL	96T XL / 92T	96T XL	96R XL
205/65R16												99T XL	99T XL	99T XL	95R
205/70R16										84H XL					
195/45R16				84V XL	84V XL / 80V					88H XL	84H XL				
195/50R16				88V XL	88V XL / 84W					91H XL / 87H	88H XL	88T XL		88T XL	
195/55R16			87V(XRP)	87W / 87V	87W / 87V		91V XL	87H		89H	87H / 87H(XRP)	91T XL	91T XL	91T XL	91R XL
195/60R16						89H	93V XL	89H		92H	89H		93T XL		
195/65R16															
185/40R16															
185/50R16				81V	81V			81H		83H	81H				
185/55R16				83V	83V		87V XL	87V XL			83H				
185/60R16						86H									
175/60R16							82H								
165/40R16															
165/45R16															
165/50R16															
15"															
255/70R15															
235/70R15															
235/75R15													109T XL		
225/45R15	87W														
225/60R15					96W										

XRP : eXtended Run-flat Performance

XL : Extra Load

Size List

Passenger Car
PKW
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Легковой автомобиль



	V730	PS91	PS71	HS52	HS51	ES31	HA32	HA31	WP72	WP52	WP51	Wi32	Wi31+	Wi51	KW31
225/70R15															
225/75R15															
215/60R15															
215/65R15						96H		96H			96H		96T		
215/70R15													98T		
215/75R15															
205/50R15	86V				86V										
205/55R15					88V										
205/60R15				91V	91V			91V / 91H			91H				
205/65R15				94V / 94H	94V		99V XL	94V		94H	94H / 94T	99T XL	94T	99T XL	99R XL
205/70R15													96T		96R
205/75R15															
195/45R15					78V										
195/50R15				82V / 82H	82V		82H	82V / 82H		82H	82H				
195/55R15				85V / 85H	85V		85H	85H		85H	85H	89T XL	89T XL		85R
195/60R15						88V / 88H	88H	88H		88T	88H / 88T	92T XL	88T	92T XL	88R
195/65R15				91V / 91H	91V	95T XL / 91V / 91H / 91T	95V XL / 91H	95V XL / 91H / 91T		95T XL / 91H / 91T	95T XL / 91H / 91T	95T XL	95T XL / 91T	95T XL	91R
185/55R15				82V / 82H	82V		86H XL	86H XL		86H XL / 82T	86H XL / 82T	86T XL	82T	86T XL	86R XL
185/60R15				88H XL		88H XL / 88T XL / 84H / 84T	88H XL	88H XL		88T XL / 84T	88T XL / 84T	88T XL	88T XL	88T XL	88R XL
185/65R15				88H		92T XL / 88H / 88T	92V XL / 88H	88H / 88T		88H / 88T	88H / 88T	92T XL	88T	92T XL	92R XL
175/50R15						75H					75H				
175/55R15							77T	77T			77T				
175/60R15						81H					81T				
175/65R15						84H / 84T	84H	84T		84T	84T	88T XL	88T XL		84R
165/50R15															
165/55R15															
165/60R15							77H	81T XL							
165/65R15						81H / 81T	81T	81T		81T	81T				
155/60R15								74T			74T				
14"															
215/70R14															
205/60R14					88H										
205/65R14					91V										
205/75R14															
195/60R14															
195/70R14								91T							
195/75R14															
185/55R14								80H			80T				
185/60R14				82H		82H / 82T	82H	82H / 82T		82T	82T	82T	82T	86T XL	
185/65R14						86H / 86T	86H	86H / 86T		86T	86T	90T XL	86T	90T XL	86R

XL : Extra Load

Size List

Passenger Car
PKW
Tourisme
Pneus de Turismo
Turismo
Легковой автомобиль

	ECSTA V730	ECSTA PS91	ECSTA PS71	ECSTA HS52	ECSTA HS51	ecowing ES31	SOLUS 4S HA32	SOLUS 4S HA31	WinterCRAFT WP72	WinterCRAFT WP52	WinterCRAFT WP51	WinterCRAFT Ice w132	WinterCRAFT Ice w131+	WinterCRAFT Ice w151	I'ZEN KW31
185/70R14						88T									
175/65R14				82H		86T XL	82T	86T XL / 82T		82T	82T	92T XL	88T	92T XL	88R
175/70R14						88T XL / 84T	88T XL	84T		84T	84T	88T XL	84T	88T XL	84R
175/80R14						88T		88T			88T				
165/55R14					76V XL										
165/60R14						75H	75H	75H		79T XL	79T XL				
165/65R14						79T	79T	79T		79T	79T	79T	79T		79R
165/70R14						85T XL / 81T	85T XL	81T		81T	81T				81R
155/55R14															
155/65R14						75T	75T	75T		75T	75T	75T	75T		75R
155/70R14															
13"															
185/60R13															
185/70R13															
175/60R13															
175/65R13								80T							
175/70R13								82T		82T	82T	82T	82T		
165/65R13															
165/70R13								79T			79T				
165/80R13													83T		
155/65R13						73T									73R
155/70R13							75T	75T		75T	75T	75T	75Q		
155/80R13							79T	79T		79T	79T	79T	79Q		
145/70R13															
145/80R13						75T	75T	75T			75T				

PC

XL : Extra Load