



# AutoSock – THE winter traction solution

**AutoSock**  
...brings you home!





**Introduction**

**AutoSock, the story**

**AutoSock, the product**

**Testing and certification**

**AutoSock, the patent**

**Marketing material**





## Introduction: the AutoSock company and its competence



AutoSock AS is a Norwegian research-based and technology driven company. The company has developed, and holds all the rights to the product AutoSock® that improves road safety of vehicles driving under adverse winter conditions.

AutoSock AS was incorporated as a Norwegian privately owned company in 1998. In 1999 the Fred Olsen owned company Invento AS became the main shareholder.

Since 1996, AutoSock® has been developed from a prototype to a high-tech product with excellent traction and durability properties.

The research and development has been verified and documented through extensive testing & approvals by leading car manufacturers.

Over 1,2 million customers have welcome the simplicity and easy use of the product.



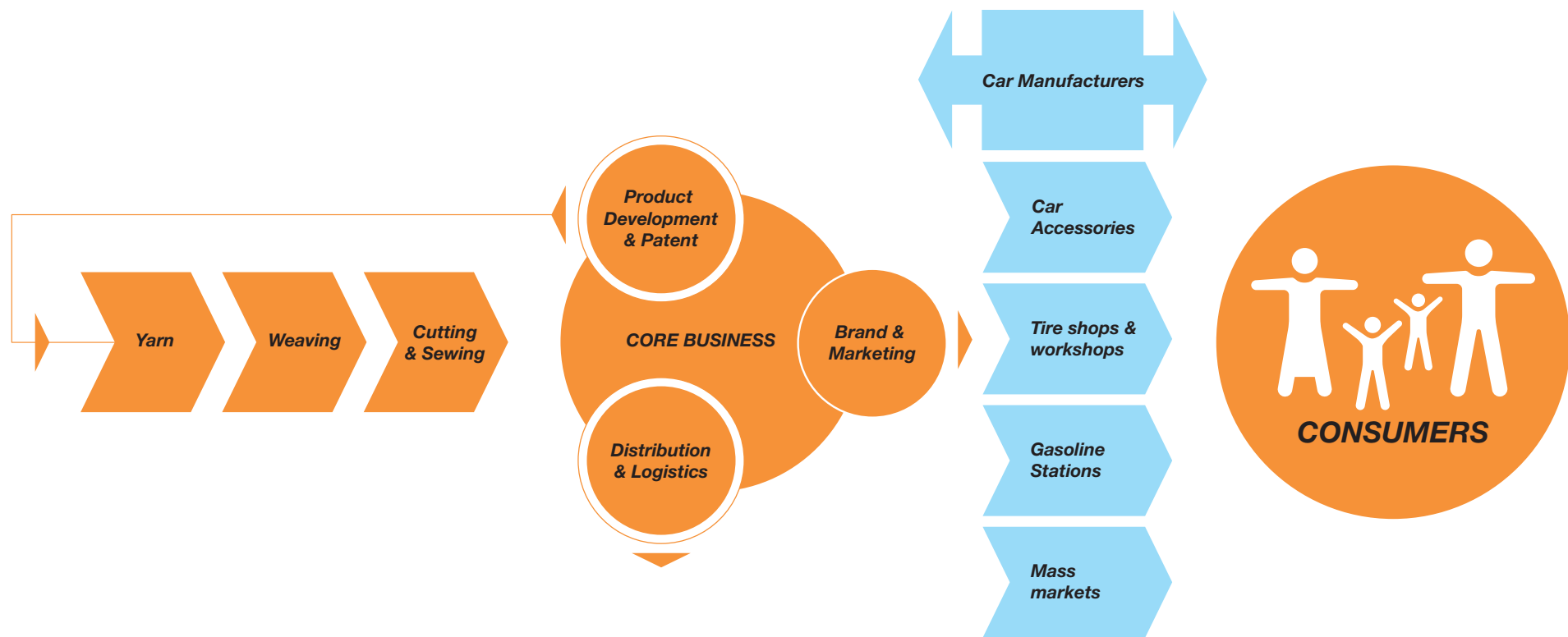
## AutoSock The Story



- 1996:** Bård Løvteit, the inventor of AutoSock starts his Research and Development work.
- 1997:** The Fred Olsen Group becomes the main shareholder of AutoSock.
- 1998:** Beginning of the collaboration with Kosa GmbH, worldwide leading fibre manufacturer in Germany.
- 2000:** Beginning of the cooperation with Reutlingen University, leading expertise and research centre on industrial textiles.
- 2001:** Creation of a new product category and homologated by the TÜV Institute.
- 2001:** Registration of AutoSock European Patent.
- 2001:** AutoSock is launched into the Scandinavian market.
- 2002:** Approved by VW and BMW Group to be followed by 10 other car manufacturers.
- 2005:** AutoSock European Patent is being granted.
- 2006:** AutoSock achieves sales of 1 million pairs.
- 2007:** AutoSock is approved by 12 car manufacturers.
- 2008:** AutoSock is approved as a Snow Chain equivalent, ref. Ö-NORM 5121.
- 2008:** AutoSock for Truck is approved as a traction device by CDOT (Colorado Department Of Transportation) in USA



# AutoSock business model



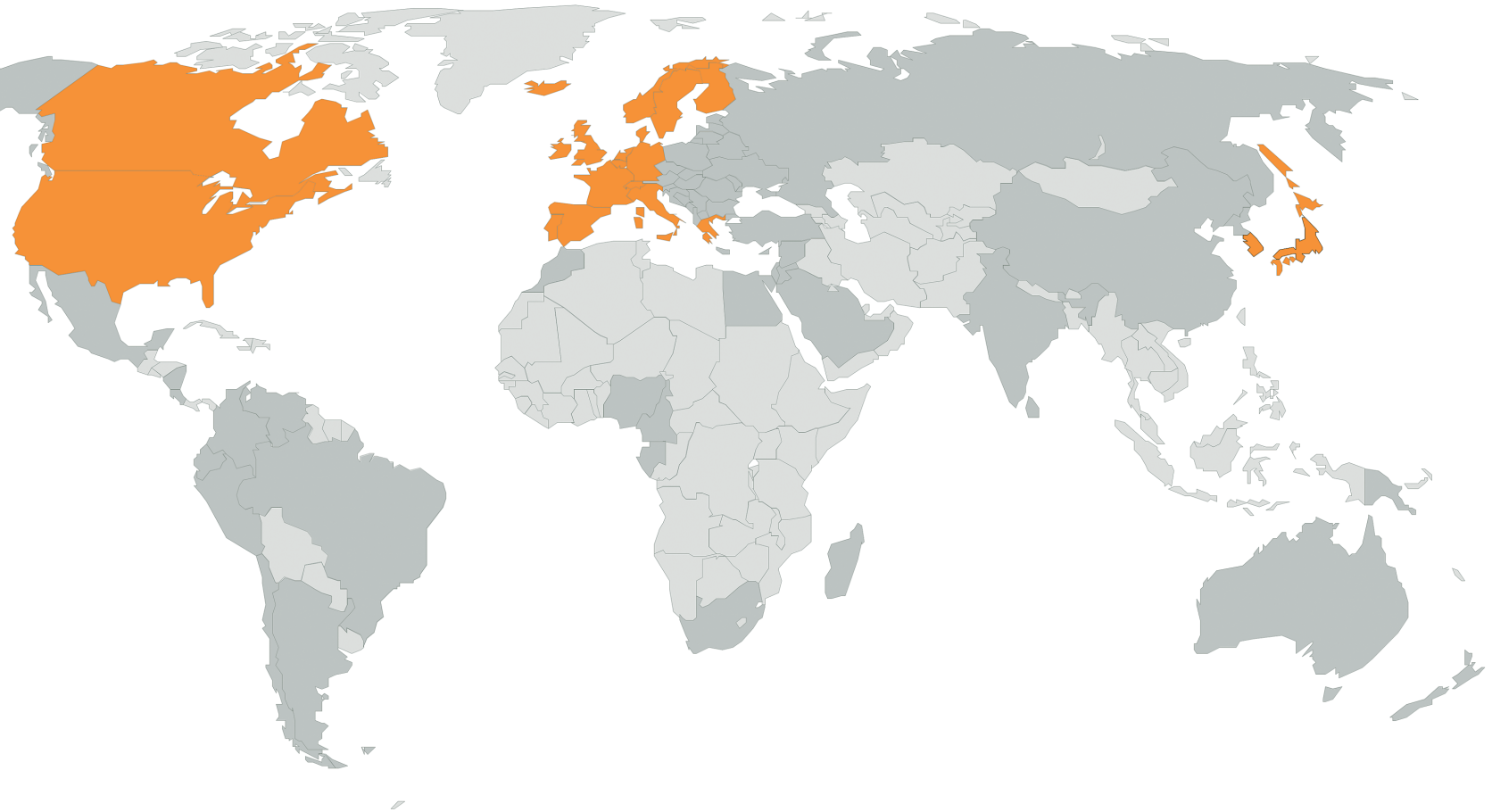




## AS market presence



- Norway
- Denmark
- Holland
- Germany
- France
- Spain
- Italy
- Sweden
- Switzerland
- UK
- Belgium
- Japan
- Korea
- Turkey
- Greece
- USA/Canada



### Car manufacturers:

BMW Group • VW Group • Peugeot PSA • Citroën • Fiat Group • Toyota • Lexus • Honda • Subaru • Mazda • Nissan • Mitsubishi • Seat



## Approvals by & sales to car manufactures

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BMW Group



VW Group



Peugeot PSA



Citroën



Fiat Group



Toyota



Lexus



Honda



Subaru



Mazda



Nissan



Mitsubishi



## The product

**The AutoSock is a newly developed tire cover, aimed at increasing tire-to-road friction when driving cars on icy or snowy roads:**

- Perfect temporary winter aid for vehicles
- Approved by TÜV and GS
- Certified as a Snow Chain Equivalent
- Approved by leading car manufacturers
- Easy and fast to fit and remove even in cold and difficult weather
- Lightweight and easy to store
- Comfortable while driving - does not cause noise or vibrations
- Self-centring
- Reusable and machine washable
- Recyclable and environmental friendly
- No damage to rims
- Works on all vehicles with low clearance between tire and the body
- Improves electronic safety systems( ABS, ESP).

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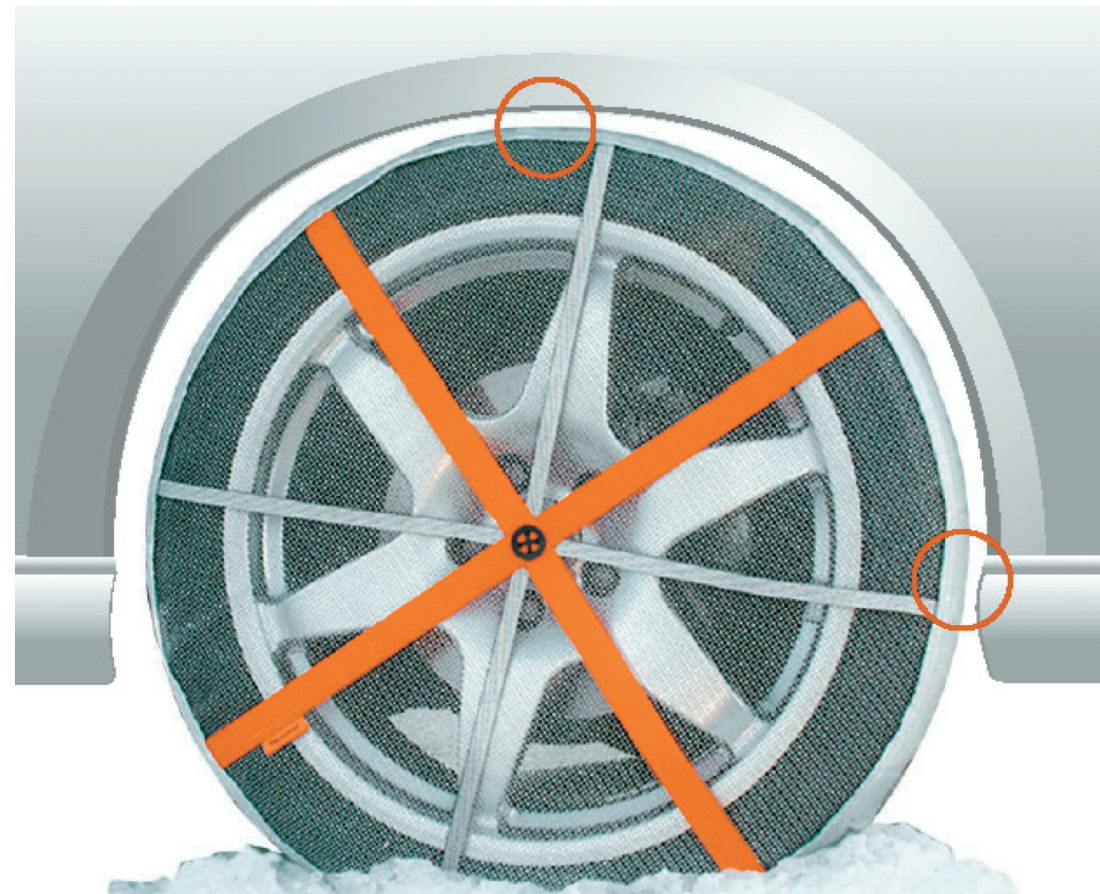
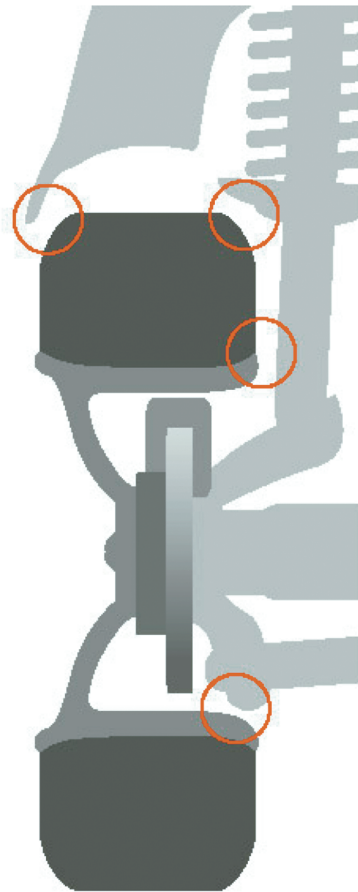




## Body Space

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AutoSock is perfectly convenient for all vehicles with low clearance between the tire and the body





# AutoSock Product Segments



**Standard AutoSock**  
Fits most common cars



**High performance AutoSock**  
Fits Wide, Low Profile  
Tire/Wheel Sizes,  
Light Trucks and SUVs

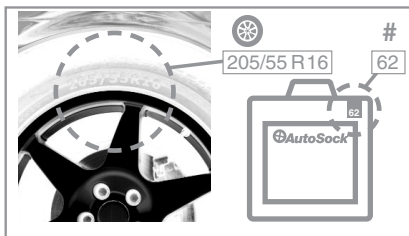


**Medium Truck and Heavy Duty**  
Fits Class 3, 4, 5, 6, 7 and 8.  
Commercial Duty and  
Fleet Applications.



PRODUCT OF NORWAY

☼	#	☼	#	☼	#	☼	#
145		195/55R14	58	215/70R15	685	235/70R16	697
145/80R13	54	195/55R15	58	215/70R16	695	235/75R15	697
145R14	58	195/55R16	62	215/75R14	685	235/75R16	697
155		195/60R14	58	215/75R15	695	235/85R16	699
155/65R14	54	195/60R15	62	215/80R15	695	245	
155/65R15	58	195/60R16	62	215/85R16	698	245/40R19	690
155/70R13	54	195/65R13	58	225		245/45R18	690
155/70R15	58	195/65R14	62	225/35R18	625	245/45R19	695
155/80R13	58	195/65R15	62	225/35R19	645	245/45R20	697
155R13	58	195/65R16	66	225/40R18	645	245/50R20	697
155R14	58	195/65R16	665	225/40R19	665	245/55R18	697
165		195/70R13	58	225/45R16	625	245/60R18	697
165/55R14	54	195/70R14	62	225/45R17	645	245/65R17	697
165/55R16	58	195/70R15	62	225/45R18	665	245/70R16	697
165/60R14	54	195/75R14	62	225/50R15	625	245/70R17	698
165/65R13	54	195/75R15	66	225/50R16	645	245/75R15	697
165/65R14	58	195/75R15	685	225/50R17	665	245/75R16	698
165/65R15	58	195/75R16	690	225/50R18	685	245/75R17	699
165/70R13	54	195/80R15	690	225/55R16	665	245/85R15	699
165/70R14	58	195R14	66	225/55R17	685	255	
165/70R15	58	195R14	685	225/55R18	695	255/45R20	697
165/80R13	58	205		225/60R15	665	255/50R19	697
165R13	58	205/40R17	605	225/60R16	685	255/50R20	698
165R14	62	205/45R16	605	225/60R17	695	255/50R21	698
175		205/45R17	625	225/65R16	690	255/55R18	697
175/55R15	58	205/45R17	625	225/65R18	697	255/55R19	698
175/60R14	54	205/50R15	605	225/70R15	690	255/55R20	698
175/60R15	58	205/50R16	625	225/70R16	695	255/60R17	697
175/65R13	54	205/50R17	645	225/70R17	697	255/65R16	697
175/65R14	58	205/55R14	58	225/70R18	698	255/65R17	698
175/65R15	62	205/55R15	62	225/75R15	695	255/65R18	698
175/70R13	58	205/55R16	62	225/75R16	697	255/70R15	697
175/70R14	58	205/55R17	665	235		255/70R16	698
175/70R15	62	205/60R14	58	235/35R18	625	255/70R17	698
175/75R13	58	205/60R15	62	235/35R19	665	255/75R15	698
175/75R16	66	205/60R16	665	235/40R17	625	265	
175/80R14	62	205/65R14	62	235/40R18	645	265/40R21	697
175/80R15	66	205/65R15	645	235/45R17	645	265/45R20	697
175R13	62	205/65R16	685	235/45R18	685	265/50R19	697
175R14	62	205/65R17	695	235/45R19	695	265/50R20	698
185		205/70R13	62	235/50R17	685	265/55R17	697
185/50R16	58	205/70R14	62	235/50R18	690	265/55R18	697
185/55R14	54	205/70R15	66	235/55R17	690	265/55R19	698
185/55R15	58	205/70R15	685	235/55R18	695	265/60R18	698
185/55R16	62	205/75R15	690	235/55R19	697	265/65R17	698
185/60R13	54	205/75R16	695	235/55R20	698	265/65R18	699
185/60R14	58	215		235/60R16	690	265/70R15	697
185/60R15	58	215/35R17	605	235/60R17	695	265/70R16	698
185/60R16	62	215/35R18	625	235/60R18	697	265/70R17	699
185/65R13	58	215/40R16	605	235/65R16	695	265/75R15	698
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185/65R15	62	215/40R18	645	235/65R18	698		
185/70R13	58	215/45R16	605				
185/70R14	62	215/45R17	625				
185/70R15	62	215/45R18	665				
185/75R14	62	215/50R16	625				
185/75R16	66	215/50R17	665				
185/75R16	685	215/55R16	645				
185R14	62	215/55R17	685				
195		215/55R18	690				
195/45R15	54	215/60R15	645				
195/45R16	58	215/60R16	665				
195/45R17	625	215/60R17	690				
195/50R15	58	215/65R15	665				
195/50R16	58	215/65R16	685				
195/55R13	54	215/70R14	665				



AS005

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# AutoSock for Passenger Car Tire Dimension Sheet





**TRUCK TRUCK TRUCK TRUCK**

**⊕AutoSock®**  
*...brings you home!*

	#
215/75 R17,5	AL59
235/70 R17,5	AL59
225/75 R17,5	AL59
245/70 R17,5	AL59
235/75 R17,5	AL64
225/70 R19,5	AL64
265/70 R19,5	AL69
285/70 R19,5	AL69
9 R19,5	AL69
315/60 R22,5	AL74
295/70 R22,5	AL74
275/80 R22,5	AL79
315/70 R22,5	AL79
295/75 R22,5	AL79
11 R22,5	AL84
295/80 R22,5	AL84
315/80 R22,5	AL84

TRUCK TDS0307

**⊕AutoSock®**  
*...brings you home!*

## **AutoSock for Truck Tire Dimension Sheet**



## Where do I use AutoSock?



The product can be used almost everywhere where there is snow or ice.  
Typical places you will need the product are:

### **For city driving:**

- When surprised by sudden snow falls or slippery roads
- Driving from your home to the main road
- Driving in uncleared residential areas to the main road

### **For mountain driving:**

- In areas where snow chains are required
- Driving on uncleared roads
- Driving onto the main roads



## Who are the users?

- Women and men
- Young and old
- Families with Children
- Taxi drivers
- Government cars
- Ambulance
- Police
- Firemen
- Car rental companies
- Vehicle management
- Lease providers



**AutoSock**  
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## Customers Give AutoSock High Marks for...



### **Convenience:**

- Easy to mount and dismount

### **Functionality:**

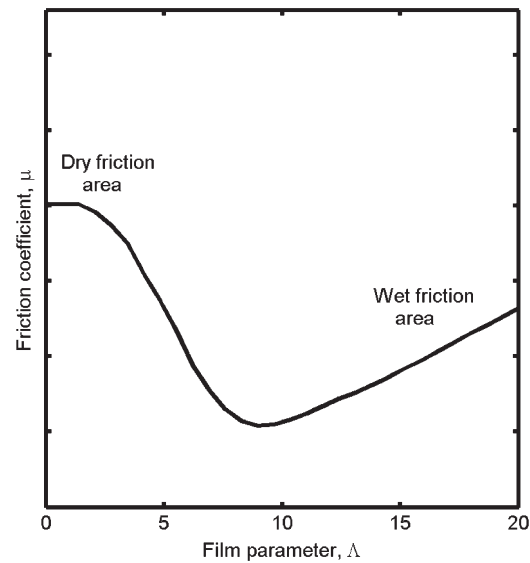
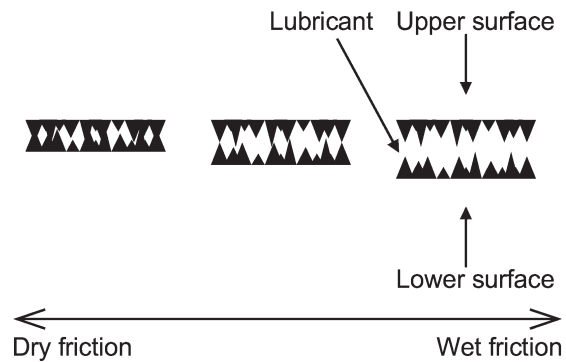
- Effective grip and braking solution

### **Satisfaction:**

- Overall product satisfaction and meeting expectations



# How does it work: The friction theory



## The AutoSock has:

A specially designed surface pattern that makes the total contact area exposed to dry friction as large as possible both under dry and wet snow or ice conditions

Hairs between and at the contact areas in order to increase the totally exposed contact area to friction





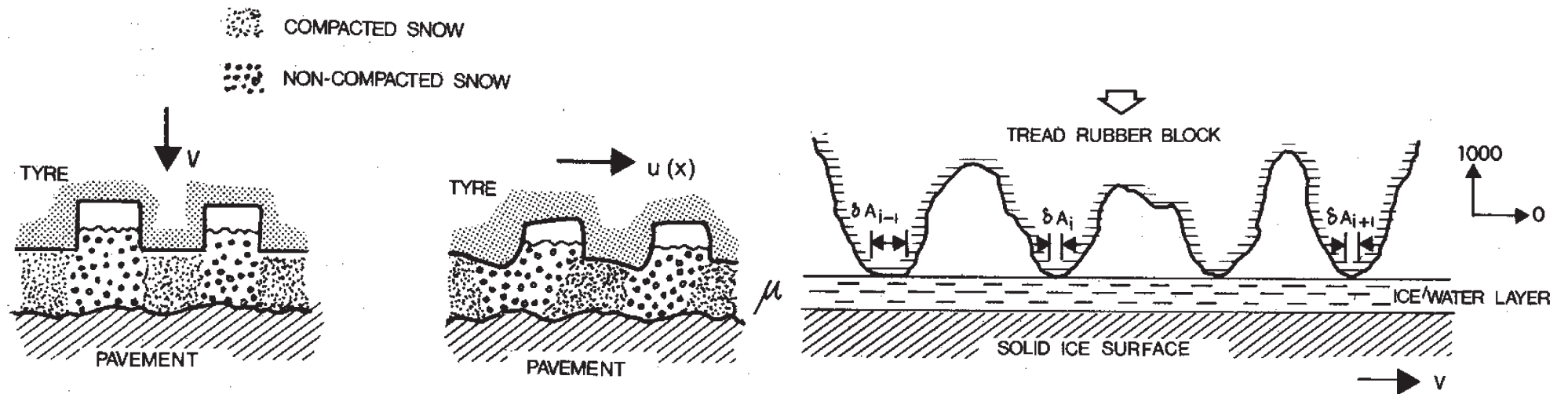
# Friction

## - Impact and compaction resistances

### The AutoSock has:

A surface pattern that makes the total contact area exposed to friction sufficiently large under both soft and hard snow or ice conditions.

A combination of surface pattern, strength and elasticity that make the contact points sufficiently sticky under hard snow or ice conditions





# New Approvals & Certificates



The  
**CERTIFICATION BODY**  
of the  
**AUSTRIAN STANDARDS INSTITUTE (ON)**  
as Product certification body according to EN 45011 respectively ISO-Guide 65  
attests with this

**CONFIRMATION  
OF CONFORMITY**

Registration number ON-N 2008 087

the conformity of the

**Wheel slide protection**  
**Type: AutoSock**

produced by the company

AutoSock AS  
Fred Olsens gt. 2, NO-0152 OSLO

**with the provisions of ÖNORM V 5121.**

According to § 3 (2) Federal Act on Standardization of 1971 the company  
AutoSock AS  
Fred Olsens gt. 2, NO-0152 OSLO  
is entitled to label this product with the logotype

**„ÖNORM V 5121 geprüft“**  
or with the mark

**„ V 5121 geprüft“.**

Testing and surveillance body:  
Dipl.-Ing. Dr. Meschik ZT GmbH  
Sandgasse 39, A-9300 St. Veit an der Glan

Date of registration: 2008-06-09  
This confirmation is valid as long as the preconditions for the registration are still fulfilled  
(see www.on-norm.at).

Vienna, 2008-06-10  
  
Dipl.-Ing. Wolfgang Höhl  
Manager of the Certification Body of ON

Österreichisches  
Normungsinstitut  
Austrian Standards  
Institute  
Member of CEN and ISO  
www.on-norm.at

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Product Service

**CERTIFICATE**  
No. Z2 08 01 44408 008

**Holder of Certificate:** AutoSock A.S.  
Fred. Olsens Gate 2  
0152 Oslo  
NORWAY

**Production Facility(ies):** 44408, 64734

**Certification Mark:**

**Product:** Winter-emergency driving aids  
Wheel slide protection control device  
Snow chain equivalent

**Model(s):** AutoSock

**Parameters:** For vehicle classes according 70/156/EEC: M1; N1; O1; O2  
Sizes as defined by tire dimension sheet (TDS)  
Using features:  
"AutoSock" has to be mounted on the drive wheels.  
On four and rear wheel driven cars an improved  
performance will be achieved when using "AutoSock"  
on all wheels.  
Tread material: Syntetic fiber

**Tested according to:** PPP 53219:2000  
DIN 31000:1979  
ONORM V 5121:2007  
SIVZO

The listed product was tested on a voluntary basis and complies with the essential requirements.  
The certification mark shown above can be affixed on the product. The certification mark must  
not be altered in any way. See also notes overleaf.

**Test report no.:** 76225977

Date, 2008-02-08  
Page 1 of 2

TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstrasse 65 · 80339 München · Germany

ZERTIFIKAT ◆ CERTIFICATE ◆ 證書 ◆ CERTIFICADO ◆ CERTIFICAT



## New Approvals & Certificates



AutoSock has been certified according to ÖNORM V 51 21 and is registered as a snow chain since spring 2008



AutoSock has successfully been certified by German TÜV as a “snow chain equivalent” in January 2008, according to ÖNorm V 5121.



Winter-emergency driving aids  
Wheel slide protection control device  
**Snow chain equivalent**



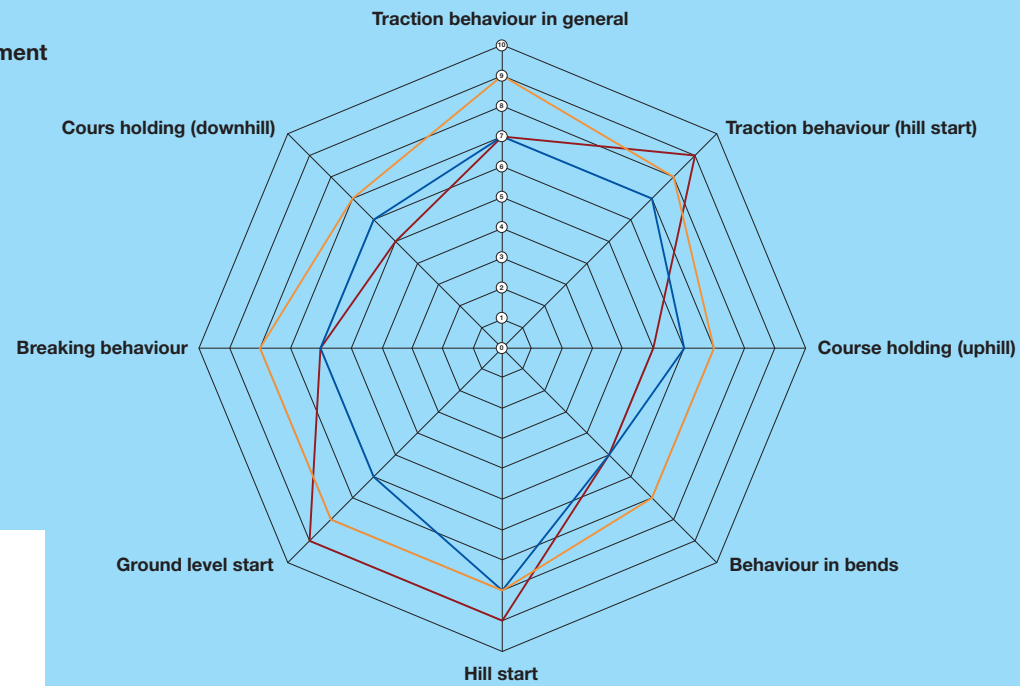
# Grip on snow



## TIRE/WHEEL - TEST-CENTER Handling Evaluation on Snow Surface (in extracts)



### VW Passat, Handling Assessment Snow Surface



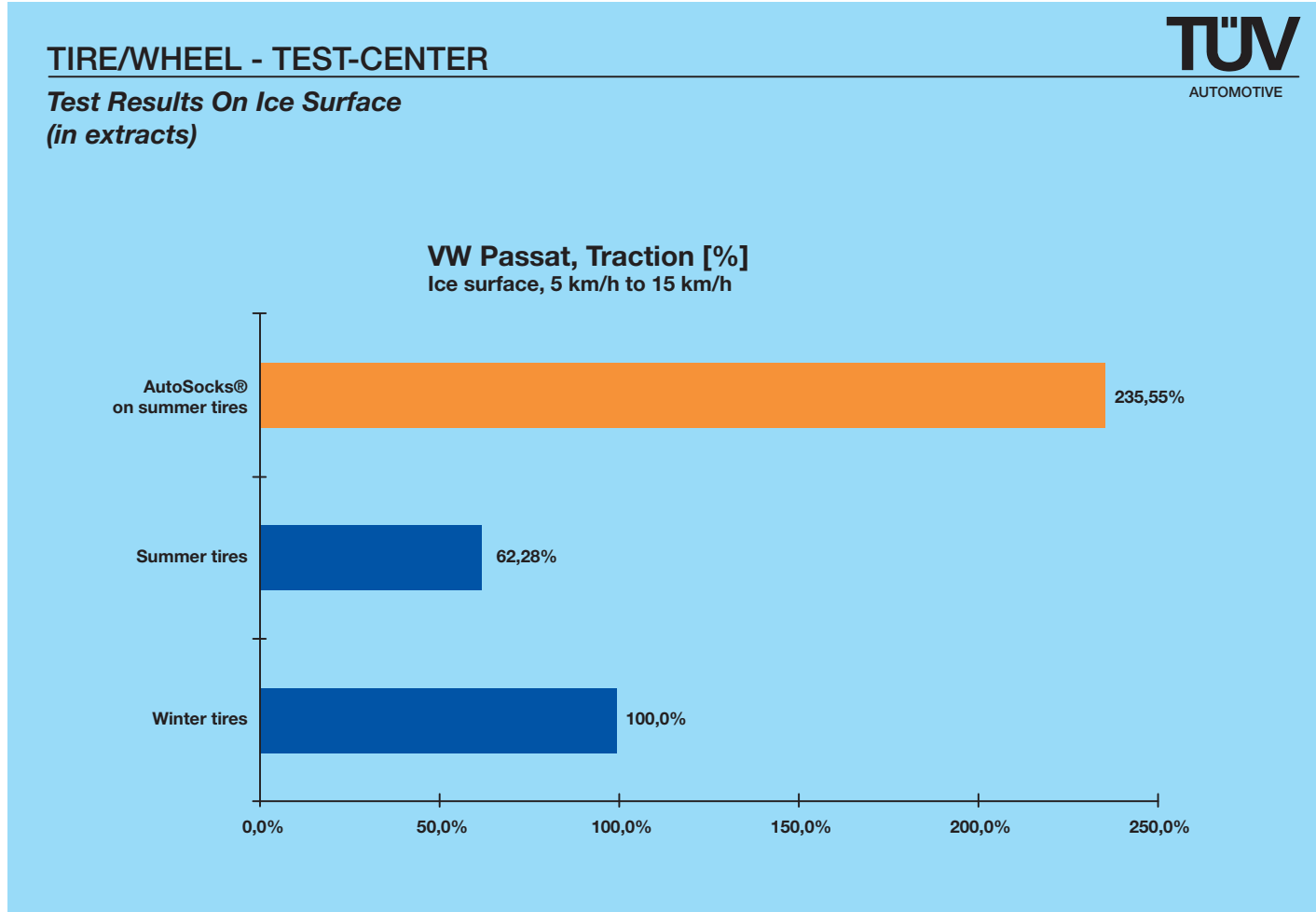
- Winter tires
- AutoSocks® on winter tires
- Snow Chains on winter tires

Rating: 0=poor, 10=exellent





# Grip on ice





# Grip on ice

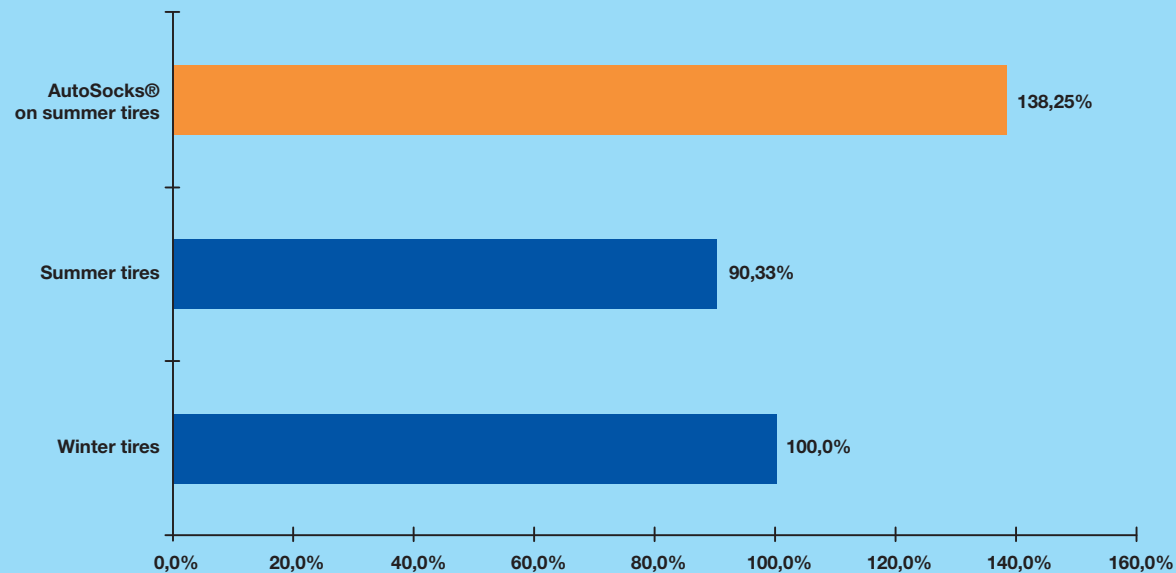


## TIRE/WHEEL - TEST-CENTER



Test Results On Ice Surface  
(in extracts)

Mercedes C-Class, Deceleration [%]  
Ice surface, 20 km/h to 5 km/h





## The Awards and Prizes



“Daily Car Newspaper” Award 2006 for Functional Goods/Accessory Division, Japan.

**2004:**

Award for Design Excellence from the Norwegian Design Council.

**2005:**

Gazelle prize, Norway



Technical innovation silver trophy in Equip Auto Grand Prix

International Grand Prix for Technical Innovation from the Association of European Technical Journalists

**2006:**

# MoMA

## The Museum of Modern Art

AutoSock has been granted the honour of being part of the permanent exhibition of Museum of Modern Art (MoMA) in New York.



## Patents and legal actions



AutoSock AS is the inventor of fiber based traction solutions on snow and ice for the automotive industry. AutoSock AS is the sole owner of all related patents. AutoSock European Patent (EP 1165329) is granted and legalized (operational) in all European countries. AutoSock AS has similar patent protection in North America and Japan. Court actions against copies:

12/2006 : Preliminary injunction against Siepa and its Austrian and German distributors by the court of Düsseldorf, Germany. Penalty of patent infringement: € 200.000 per incident to the German state.

Preliminary injunction against the Trendy distributor in Norway by the Court of Telemark. The Trendy products were withdrawn from the shops and forbidden to be sold.

Preliminary injunction against Multigrip by the court of Düsseldorf.  
Penalty of patent infringement: € 200.000 per incident to the German state.

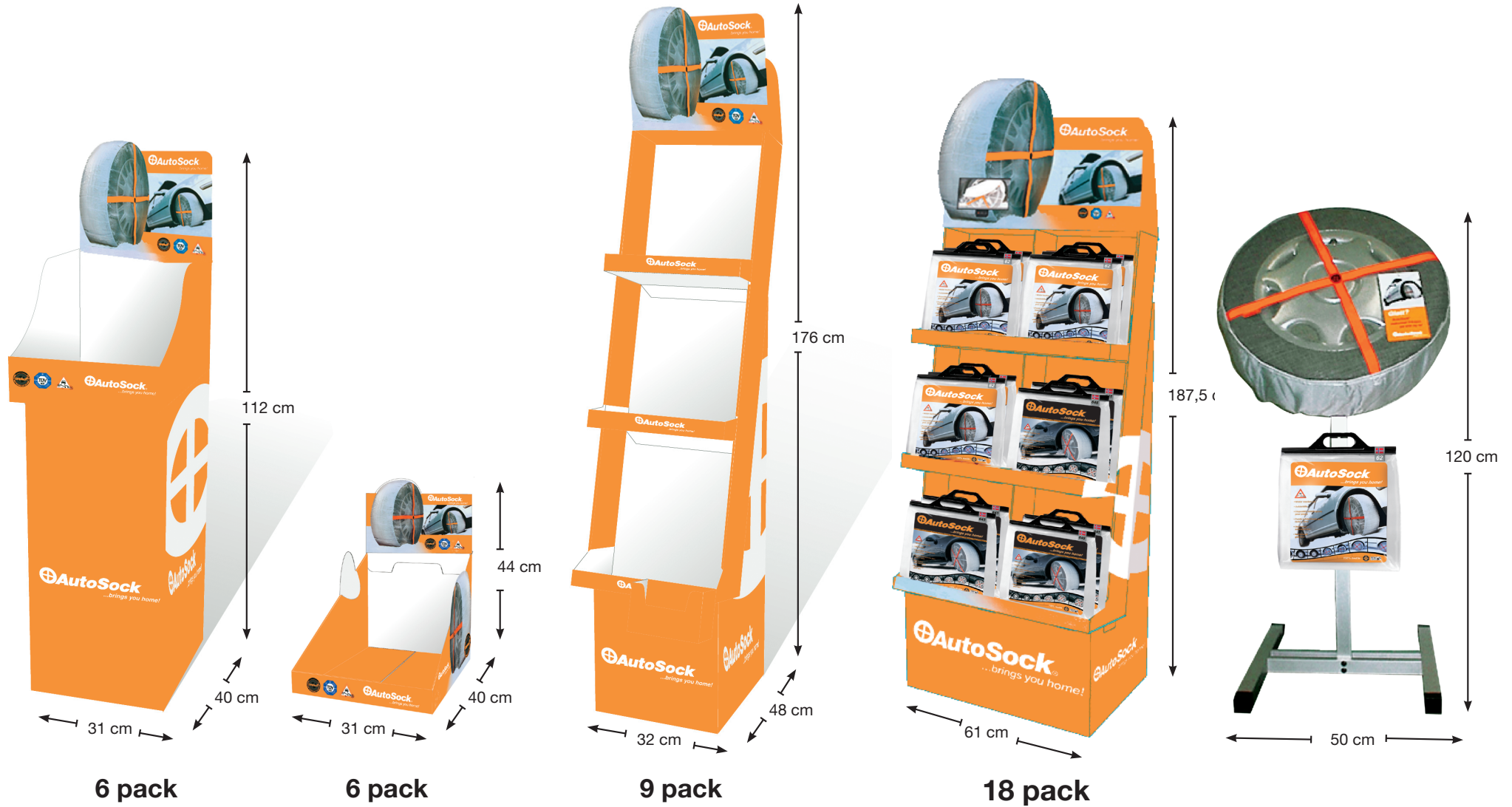
AutoSock has initiated legal proceedings against copies in France, Spain, Italy, Korea and Japan.

The European Patent Office through its preliminary statement and through its oral hearing in February 2008, has confirmed that the filed opposition against the patent will not be heard. The granted patent will be remain unchanged.





# AutoSock – displays





## AutoSock Logistical Data



PRODUCT	EAN CODES	SIZE OF A CARTON BOX	WEIGHT OF A CARTON BOX	PRODUCTS PER BOX	BOXES PER PALETT
54	7090005001549	600x300x400mm	12 kg	12	28
58	7090005001587	600x300x400mm	12 kg	12	28
62	7090005001624	600x300x400mm	12 kg	12	28
66	7090005001662	600x300x400mm	12 kg	12	28
605	7090005006056	600x300x400mm	12 kg	12	28
625	7090005006254	600x300x400mm	12 kg	12	28
645	7090005006452	600x300x400mm	12 kg	12	28
665	7090005006650	600x300x400mm	12 kg	12	28
685	7090005006858	600x300x400mm	12 kg	12	28
690	7090005006902	600x300x400mm	12kg	12	28
695	7090005006957	600x300x400mm	12 kg	12	28
697	7090005000245	600x300x400mm	12 kg	12	28
698	7090005000252	600x300x400mm	12 kg	12	28
699	7090005006995	600x300x400mm	12 kg	12	28



## Sales strategy for small shops



### AS Sales Statistics Europe 2003 - 2007

#### Standard Sizes

	2003	2004	2005	2006	2007
54	12,9%	6,3%	5,2%	5,4%	6,1%
58	31,2%	20,9%	25,5%	27,5%	33,6%
62	35,6%	48,7%	56,1%	62,2%	58,5%
66	20,4%	17,4%	11,1%	4,7%	1,8%
68		6,7%	2,1%	0,3%	0,0%

#### HP Sizes

	2005	2006	2007
605	14,7%	6,6%	2,7%
625	15,6%	10,5%	3,2%
645	32,6%	37,9%	31,1%
665	20,2%	18,1%	19,9%
685	16,9%	12,4%	12,6%
690		7,3%	5,7%
695		7,3%	2,7%
697			12,9%
698			9,2%

Best-selling sizes:  
58, 62 and 645



# Sales strategy for small shops

Sizes 58, 62 and 645 cover appr. 80%\* of driven tires

	58	62	645
Alfa Romeo	145, 146	147, 156, 166, GT, GTV, Spider	159
Audi	A2	A3 A4 <sup>-07</sup> A6 <sup>-04</sup>	TT
BMW / Mini		Mini, Clubman, 1-Serie, 3-Serie, 5-Serie <sup>-02</sup> , Z3, Z4-2.2	3-coupe <sup>-04</sup>
Chevrolet	Kalos, Lanos, Nubi ra	Rezzo	
Chrysler			
Citroen	C2, C3, Xsara, ZX, Berlingo	Pluriel, C4, C5 <sup>-02</sup> , XM, Xantia, Xsara, Pic, Evasion, Jumpy, C8 2.0 <sup>-05</sup> , Berlingo <sup>-05</sup>	C5 <sup>-03</sup> , C4 Picasso
Dacia		Logan	
Daewoo	Nexia, Nubira		
Daihatsu	Applause, Gran Move		
Fiat	Idea, Panda II, Punto, Bravo, Brava, Doblo, 500	Croma <sup>-05</sup> , Stilio, Multipla, Scudo <sup>-07</sup> , Ulysse, 2.0, Bravo <sup>-07</sup> , Linea, Grand Punto	Croma <sup>05</sup>
Ford	Fiesta, Puma, Escort, Mondeo <sup>-01</sup> , Focus <sup>-04</sup>	Mondeo <sup>-07</sup> , Fusion, C-Max, Focus	Galaxy <sup>-05</sup> , Mondeo <sup>-07</sup>
Honda	Civic-05, Jazz, Logo, Integra, TypeR	FR-V, Civic, Accord, Prelude, Stream, Shuttle	
Hyundai	Accent, Matrix	i30, Elantra, Sonata <sup>-05</sup>	XG
Jaguar		X-Type	
Kia	Rio	Cerato, Magentis, Carens, Ceed	
Lancia	Dedra, Delta, Y	Kappa, Lybra, Musa	Zeta
Mazda	Premacy, MX5 <sup>-05</sup> 323, 2	3, 5, 6, Tino, MX5, 626 <sup>-05</sup> , 929	
Mercedes-Benz	A-Class-02, Vaneo	B-Class, A-Class, C-Class, E-Class <sup>-02</sup> Vito/V-Class <sup>-04</sup>	
Mitsubishi	Colt, SpaceStar, Carisma <sup>-00</sup>	Lancer, Carisma, Space Wagon <sup>-05</sup> , Almera, Galant	
Nissan	Almera <sup>-02</sup> , Micra <sup>-03</sup>	Note, Vectra, Almera, Tino, Primera-02, Serena, 200SX, Maxima	
Opel	Agila, Corsa <sup>-05</sup> , Combo Astra <sup>-04</sup> , Meriva	Zafam Vectra <sup>-04</sup> , Omega, Signum, Astra, Corsa	Signum, Vectra <sup>-04</sup>
Peugeot	1007, 206, 306, 405, Partner	207, 307, 308, 406, 605, Expert, Boxer	806
Renault	Clio, Twingo, Megane <sup>-02</sup> , Scenic <sup>-02</sup> , Kangoo, Modus	Megane, Scenic, Laguna <sup>-05/06</sup> Safranem Espace <sup>-05</sup> , Gr Scenic 1,6 <sup>-04</sup>	Laguna <sup>-07</sup> , Grand/Espace <sup>-02</sup>
Rover	25, 45, MG TF	75 Heritage	75
Saab		900, 9000, 9-3 <sup>-05</sup>	9-3 <sup>-05</sup> , 9-5
Seat	Ibiza, Cordoba, Inca, Toledo <sup>-05</sup>	Leon, Toledo, Altea	Alhambra
Skoda	Fabia, Roomster, Praktik	Octavia, Superb	
Subaru	Justy	Impreza, Legacy	
Suzuki	Splash, Baleno, Llana, Ignis		
Toyota / Lexus	Yaris, Corolla <sup>-01</sup> , Carina, Prius <sup>-02</sup> , Paseo	Auris, Corolla, Prius, Avensis, Picnic, Camry, Hiace / IS200-300	Previa
Volvo	S40 <sup>-02</sup>	C30, S40, V40, V50, S60, S70, V70	C70, S80 <sup>-05</sup>
VW	Polo, Fox, Vento, Golf <sup>-05</sup> , Jetta <sup>-05</sup> , Passat <sup>-07</sup>	Beatle, Jetta, Caddy, Touran, Golf, Passat <sup>-05</sup> , Caravelle/Transporter <sup>-02</sup>	Passat <sup>-05</sup> , EOS, Sharan





# Sales strategy for small shops



Cover 80%\* of driven cars/tires with our Six Pack Display:



1 Pair Size 58

4 Pairs Size 62

1 Pair Size 645

1 small Six Pack display

Improved turnover + less returns

\*country specific



## Conclusion

**AutoSock**  
...brings you home!

- Unique grip on snow and ice
- Easy to handle and convenient to use
- Suits every profile of end user
- Requires little storage space
- Delivers safety in difficult winter conditions
- Environmentally sustainable product
- Is THE solution for vehicles on which it is not possible to mount snow chains
- Works on all vehicles with low clearance between the tire and the body
- Does not disturb electronic safety systems (ESP, ABS).
- Approved as a Snow Chain Equivalent
- Radical new car innovation!

