

# Nokian multipurpose tyres

## Multipurpose tyres includes:

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# Unstoppable Nokian MPT Agile

The Finnish Defence Forces

A safety tyre that will not leave you by the roadside



In Sodankylä, northern Finland, the temperature is nearly thirty degrees below zero centigrade as the Finnish Defence Forces are training for winter warfare. Meanwhile in Chad, central Africa, a patrol is carrying out the EU's international crisis management operation in scorching heat. Both scenarios have one thing in common: the Nokian MPT Agile tyres on the armoured and terrain vehicles.

– We perform our assignments in challenging conditions. While we need to make the most of the vehicles, we also have to secure our troops' ability to operate, explains Major (Eng.) **Jukka Karhi**, technical manager of the Vehicle System and Transportation Division at the Logistics School of the Finnish Defence Forces.

## Technical service and logistics deliver added value

The Finnish Defence Forces uses the Nokian MPT Agile tyres on Sisu terrain trucks, Pasi armoured personnel carriers and on the new Patria AMVs. All tyres are equipped with a run-flat device. That means that a bullet or fragment hitting the tyre won't stop the vehicle. In addition, the sidewall of the tyre is very cut and puncture resistant.

– For us, it is essential that the tyres are durable and make for a profitable purchase in terms of overall economic efficiency. Excellent technical service and logistics deliver added value, says Lieutenant (Eng.) **Markku Lepistö**, Project Manager in charge of terrain truck acquisitions at the Vehicle Sector of the Material Command of the Finnish Army.



# Nokian MPT Agile



## LOAD-CARRYING CAPACITY FOR OFF-ROAD TRUCKS AND ARMoured VEHICLES

- › Both road and off-road use
- › Good steering response
- › Low noise level
- › Excellent wear resistance
- › Excellent mobility for summer and winter
- › Developed for use also with studs and chains



### NOKIAN MPT AGILE

G = 90 km/h / 55 mph

Size	LI/SS	Pattern	TT/TL	Rim	Permitted rims	Width		Diameter		Loaded static radius		Rolling circumference		Maximum inflation pressure		Load capacity kg/lb				Product code
						mm	in	mm	in	mm±2.5%/in±2.5%	mm±2.5%/in±2.5%	kPa/p.s.i.	kPa/p.s.i.	50 km/h 30 mph	90 km/h 55 mph	50 km/h 30 mph	90 km/h 55 mph			
14.00R20	164 G	MPT Agile	TL	10.0 (TT), 10.00V (TL, run flat device*)	9.0, 10.00W (TL, run flat device*)	380	15.0	1264	49.8	585	23.0	3850	151.6	750	109	5600	12345	5000	11025	T445231
365/80R20	152 G	MPT Agile	TL	11	11 SDC, 12, 12 SDC	360	14.2	1092	43.0	505	19.9	3343	131.6	625	91	3975	8765	3550	7825	T445431

\* A run flat insert is a mobility aid for tubeless multi-piece wheels. After puncture the run flat device will permit the vehicle to run with a flat tyre.

### TREAD DEPTH

Size	LI / SS	Pattern	Tread depth	
			mm	32 nds in
14.00R20	164 G	MPT Agile	25	32
365/80R20	152 G	MPT Agile	15	19

### DRIVING SAFETY INDICATOR (DSI)



Remaining tread depth in mm 365/80R20 Nokian MPT Agile

# Tubes and valves

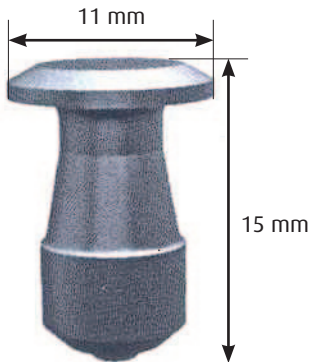
## NOKIAN MPT AGILE

Size	LI / SS	Product code	Valve tubeless	Tube product code	Valve tube-type
14.00R20	164 G	T445231	TR650	T52920	V3.02.16
365/80R20	152 G	T445431	TR650	T55093	TRJ1175

**Notice!**  
Use only Nokian tubes for optimal tube life.

# Stud recommendations

Truck tyre stud (max. 3 g / 0,1 oz)



**1) Nokian MPT Agile tyres are part of the truck tyre norm.**

**Therefore:**

Recommended stud for truck tyres has a length of 15 mm / 19/32 nds of an inch and flange diameter of 11 mm / 14/32 nds of inch.

Stud				Drilled stud hole			
Length		Flange diameter		Diameter		Depth	
mm	32 nds in	mm	32 nds in	mm	32 nds in	mm	32 nds in
15	19	11	14	5	6	13	16

**2) Nokian MPT Agile tyres used in Military or i.e. Fire Truck applications can also be used with 13 mm / 16/32 nds of inch flange studs.**

This larger flange diameter gives better overall performance, but often requires special approval for the use.

Stud				Drilled stud hole			
Length		Flange diameter		Diameter		Depth	
mm	32 nds in	mm	32 nds in	mm	32 nds in	mm	32 nds in
15	19	13	16	6	8	13	16

**3) Stud amount in tyres (EU / since 1st July 2009):**

Maximum of 50 pcs of studs allowed for every 1 m / 39,4 inch of tyre circumference.

**With the MPT Agile pattern type, the amount of studs:**

365/80R20 MPT Agile            171 pcs max (evenly distributed 168 pcs)  
 14.00R20 MPT Agile            198 pcs max (evenly distributed 192 pcs)

Stud places in MPT tyres



**O** = Normal stud places, 144 in total

**X** = Additional stud places, 72 pcs

**Notice!**  
 Please check your  
 local legislation on  
 stud use.

# Liquid and salt ballasting

## LIQUID AND SALT BALLASTING

- › Liquid ballasting is used to increase machine stability.
- › It is recommended to use professional tyre outlets to carry out the filling procedure.
- › Special equipment and water permeable valves are required.
- › In liquid and salt ballasting, use tubes to prevent rims from rusting.

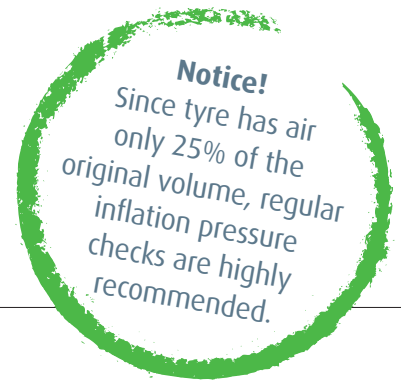
**Note! If a filler other than liquid is used (i.e. polyurethane), tyre warranty does not apply.**

### Water ballasting

75 % of tyre volume is filled. Amounts listed in the table below.

### Water and salt ballasting

The addition of salt will prevent freezing. 75% of tyre volume is filled with the proportions given in the table below. The salt / water solution is calculated at a temperature of -30 °C / -22 °F. Normal commercial salt (CaCl<sub>2</sub>), 77% purity, is used. Any additional salt will not necessarily dissolve in water. The remaining tyre volume is inflated to the recommended inflation pressure.



## NOKIAN MPT AGILE

Size	LI / SS	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
14.00R20	164 G	245	65	185	50	151	40	77	170	228	505
365/80R20	152 G	185	50	140	35	114	30	58	130	172	380

# Load capacity values at different speeds and pressures

## NOKIAN MPT AGILE

### Size: 14.00R20 164 G TL

Inflation Pressure		0		10		20		30		40		50		60		70		80		90	
kPa	p.s.i.	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
		kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb
350	51	2 090	4 610	2 300	5 070	2 460	5 425	2 830	6 240	2 800	6 175	2 090	4 610	2 300	5 070	2 460	5 425	2 830	6 240	2 800	6 175
550	80	2 340	5 160	2 575	5 675	2 760	6 085	3 170	6 990	3 150	6 945	2 340	5 160	2 575	5 675	2 760	6 085	3 170	6 990	3 150	6 945
750	109	2 640	5 820	2 900	6 395	3 100	6 835	3 570	7 870	3 550	7 825	2 640	5 820	2 900	6 395	3 100	6 835	3 570	7 870	3 550	7 825

### Size: 365/80R20 152 G TL

Inflation Pressure		0		10		20		30		40		50		60		70		80		90	
kPa	p.s.i.	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
		kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb
300	44	5 000	11 025	3 600	7 935	3 000	6 615	2 500	5 510	2 300	5 070	2 240	4 940	2 200	4 850	2 140	4 720	2 080	4 585	2 000	4 410
450	65	6 810	15 015	4 905	10 815	4 090	9 015	3 405	7 505	3 135	6 910	3 050	6 725	3 000	6 615	2 915	6 425	2 835	6 250	2 725	6 010
575	83	8 125	17 910	5 850	12 895	4 875	10 745	4 065	8 960	3 740	8 245	3 640	8 025	3 575	7 880	3 480	7 670	3 380	7 450	3 250	7 165
625	91	8 875	19 565	6 390	14 085	5 325	11 740	4 440	9 790	4 085	9 005	3 975	8 765	3 905	8 610	3 800	8 375	3 690	8 135	3 550	7 825