



SPECIALLY DESIGNED FOR CIVIL OR MILITARY VEHICLES THAT
DRIVE ON ALL TERRAINS AND REQUIRE MAXIMUM MOBILITY



2016-2017 EDITION

MICHELIN MILITARY TYRES DATA BOOK



MICHELIN

A better way forward

IN THE MOST EXTREME CONDITION, RUNNING ON MICHELIN MEANS



Being equipped with tyres

Designed and homologated according to your specifications, thanks to Michelin's partnership with military vehicle manufacturers.



Choosing from a comprehensive range of products.

- For all types of vehicles and all conditions of use.

Relying on a specialised team

Experienced in the requirements of military and off-road activity.

Profiting from technological innovations from a global manufacturer.

- All-terrain tyres on radial casings, patented tread patterns and concept solutions.



Benefiting from minimum running costs

■ High mileage potential, damage resistance and reliability of Michelin casings.

■ Tyres specifically designed for military use with anti-FOD (Foreign Object Deposit) characteristics.

■ Through the tyre's life, MICHELIN offers best value while offering high levels of damage resistance and survivability.



Counting on worldwide assistance.

- Availability of MICHELIN tyres and technical support on five continents.

XZL™ / XZL™ + / X® FORCE™ ZL / XZL™ WB



THE ALL-TERRAIN, ALL POSITION RADIAL TYRE FOR MOBILITY IN ALL CONDITIONS

- Exceptional mobility whatever the terrain
- Safety and comfort on-road
- Robustness

XZL 2™ / X® FORCE™ 2



THE TYRE OPTIMISED FOR ROADS, TRACKS AND SAND

- Exceptional handling on-road and good flotation on sand
- High-speed long-distance capability
- Very good tread Life

XS™ / X® FORCE™ S



THE ALL-TERRAIN, ALL POSITION RADIAL TYRE OPTIMISED FOR SAND MOBILITY

- Exceptional mobility on sand
- Safety on tracks and roads
- Run-flat capability

XML™ / X® FORCE™ ML



THE REFERENCE IN MUD

- Exceptional mobility in mud
- Run-flat capability
- Sidewall and tread block robustness

MICHELIN X® FORCE™, PROVEN PERFORMANCE IN THE MOST EXTREME CONDITIONS



MICHELIN MILITARY TYRE SPECIFICATIONS

**XZL™ / XZL™ +
XZL™ WB / X® FORCE™ ZL**



SIZE	TREAD	M+S	RECOMMENDED MEASURING & OPTIONAL RIMS	FLAP & TUBE, OR TUBELESS	MASS	TREAD DEPTH	OVERALL WIDTH	OVERALL DIAMETER	STATIC LADEN RADIUS	REVOLUTIONS PER MILE								
											LOAD & SPEED INDEX UNIQUE POINT	RUNNING CONDITIONS SINGLE OR DUAL MOUNT		MAXIMUM LOAD & PRESSURE PER TYRE		MAXIMUM SPEED		FOOTPRINT
												KG / KPA	BAR	PSI	KM/H	MPH	CM ²	
7.50 R 16 TL	XZL™ 116N	YES	Measuring 6.0J Optional 5.50F to 6.50H	16J13 TUBELESS	20.3 kg	13 mm	217 mm	804 mm	376 mm	657								
											Road	S	1250	5.25	76	140	87	301
											Road	D	1180	5.25	76	140	87	301
											Cross Country	S	1250	3.4	49	65	40	450
											Mud and Sand	S	1250	2.1	30	20	12	690
255/100 R 16 (9.00 R 16) TL*	XZL™ 126 K (134 J)	YES	Measuring 6.50 H Optional 6.00G	170-16L	40 kg	16.5 mm	255 mm	923 mm	426 mm	573								
											Road	S	1700	4.5	65	110	68	437
											Cross Country	S	1700	2.9	40	70	43	577
											Mud and Sand	S	1700	1.7	25	30	19	833
11.00 R 16 TL*	XZL™ 135 K	YES	Measuring 6.50H	16x6.00 16P	48.9 kg	17.5 mm	287 mm	984 mm	455 mm	536								
											Road	S	2180	5.5	80	110	68	583
											Cross Country	S	2180	3.2	45	65	40	756
											Mud and Sand	S	2180	1.7	25	20	12	1010
325/85 R 16 TL	X® FORCE™ Z 140K	YES	Measuring 9.00	TUBELESS	53.7 kg	17 mm	328 mm	986 mm	449 mm	539								
											Road	S	2500	5.0	72	110	68	564
											Cross Country	S	2500	3.6	52	70	43	776
											Mud and Sand	S	2500	1.9	28	30	19	1065
275/80 R 20 (10.5 R 20) TL*	XZL™ MPT 128 K	YES	Measuring 9.00	240-20L, 230-20L, 20P15, 20P	32.2 kg	15.2 mm	280 mm	939 mm	431 mm	565								
											Road	S	1800	4.2	61	110	68	476
											Cross Country	S	1800	2.7	40	65	40	590
											Mud and Sand	S	1800	2.0	30	20	12	695
335/80 R 20 (12.5 R 20) TL*	XZL™ MPT 141 K	YES	Measuring 11-20 Optional 9, 9 SDC, W9, W10, DW10, 11 SDC, W11, DW11, 12, 12 SDC	20x10.00 20P	54.5 Kg	17.8 mm	345 mm	1037 mm	473 mm	512								
											Road	S	2575	4.3	62	110	86	715
											Cross Country	S	2575	3.7	54	70	43	771
											Mud and Sand	S	2575	1.9	30	30	19	1082
365/80 R 20 (14.5 R 20) TL*	XZL™ MPT 152 K	YES	Measuring 11.00	320-20L 20Q	72.6 kg	19.9 mm	372 mm	1096 mm	501 mm	483								
											Road	S	3550	6.0	87	110	68	777
											Cross Country	S	3550	4.7	68	65	40	880
											Mud and Sand	S	3550	2.4	35	20	12	1244
365/85 R 20 TL*	XZL™ 164 G	YES	Measuring 10.0	280-20L 20S	88.5 Kg	22.5 mm	368 mm	1144 mm	520 mm	465								
											Road	S	5000	7.5	109	90	55	857
											Cross Country	S	3250	3.8	55	70	43	932
											Mud and Sand	S	3250	2.1	30	30	19	1246
395/85 R 20 TL*	XZL™ 168 G (161 J)	YES	Measuring 10.00W Optional 10.00	280-20L 20S	98.1 kg	25.8 mm	388 mm	1189 mm	542 mm	447								
											Road	S	5600	8.5	123	90	55	932
											Cross Country	S	3650	3.6	52	70	43	1110
											Mud and Sand	S	3650	2.1	30	30	19	1432

SIZE	TREAD	M+S	RECOMMENDED MEASURING & OPTIONAL RIMS	FLAP & TUBE, OR TUBELESS	MASS	TREAD DEPTH	OVERALL WIDTH	OVERALL DIAMETER	STATIC LADEN RADIUS	REVOLUTIONS PER MILE								
											LOAD & SPEED INDEX UNIQUE POINT	RUNNING CONDITIONS SINGLE OR DUAL MOUNT		MAXIMUM LOAD & PRESSURE PER TYRE		MAXIMUM SPEED		FOOTPRINT
												KG / KPA	BAR	PSI	KM/H	MPH	CM ²	
10.00 R 20 TT	XZL™ 146/143 K	YES	Measuring 7.5	200-20L 20N	53.8 kg	17.3 mm	281 mm	1060 mm	493 mm	497								
											Road	S	3000	7.8	116	110	68	500
											Cross Country	S	1950	2.9	42	65	40	615
											Mud and Sand	S	1950	1.5	22	20	12	799
11.00 R 20 TL*	XZL™ 150/146 K	YES	Measuring 8.00 Optional 8.50, 7.50	220-20L 20P	63 kg	18 mm	299 mm	1092 mm	508 mm	482								
											Road	S	3350	8.0	116	110	68	546
											Cross Country	S	2200	2.9	40	65	40	700
											Mud and Sand	S	2200	1.5	20	20	12	931
12.00 R 20 TL*	XZL™ 154/149 K	YES	Measuring 8.50 Optional 7.50, 8.0, 9.0	240 - 20L 20Q	72.6 kg	18.7 mm	311 mm	1131 mm	527 mm	465								
											Road	S	3750	8.5	123	110	68	611
											Cross Country	S	2450	2.8	41	65	40	831
											Mud and Sand	S	2450	1.5	22	20	12	1122
14.00 R 20 TL*	XZL™ + 164/160 J (166 G)	YES	Measuring 10.00 Optional 10.00, 10.00W	20x10.00 20S	103.5 kg	22.3 mm	386 mm	1258 mm	578 mm	420								
											Road	S	5000	7.6	110	100	62	983
											Cross Country	S	5000	5.5	80	70	43	1240
											Mud and Sand	S	5000	3.3	50	30	19	1657
16.00 R 20 TL*	XZL™ 173/170 G	NO	Measuring 10.00W Optional 10.0V, 10.00, 11.25	20x10.00 20V	151 kg	27 mm	438 mm	1343 mm	609	393								
											Road	S	6500	7.5	109	90	56	1288
											Cross Country	S	4500	3.4	49	70	43	1496
											Mud and Sand	S	4500	1.8	26	30	19	1959
24 R 21 TL	XZL™ 176 G	YES	Measuring 18.00	TUBELESS	191.4 kg	25 mm	608 mm	1388 mm	631 mm	383								
											Road	S	7100	6.0	87	90	56	1675
											Cross Country	S	5500	3.1	45	65	40	2072
											Mud and Sand	S	5500	1.6	25	20	12	2898
13 R 22.5 TL	XZL™ 154/150 K	YES	Measuring 9.00	TUBELESS	74.2 kg	20.2 mm	307 mm	1130 mm	525 mm	470								
											Road	S	3750	8.0	115	110	68	637
											Road	D	3350	8.0	115	110	68	595
											Cross Country	S	2450	3.3	50	70	43	780
											Mud and Sand	S	2450	1.7	25	30	19	1037
445/65 R 22.5 TL	XZL™ (WB) 168 G	YES	Measuring 14.00	TUBELESS	104.5 kg	21 mm	448 mm	1168 mm	537	453								
											Road	S	5600	8.0	116	90	56	1037
											Cross Country	S	3800	4.0	60	65	40	1151
											Mud and Sand	S	3800	2.3	35	20	12	1453

All the pressures are given for nominal conditions. Extension of use may be allowed for specific needs. Please contact your Michelin sales representative.

MICHELIN MILITARY TYRE SPECIFICATIONS

XZL 2™ X® FORCE™ 2



SIZE	TREAD	M+S	RECOMMENDED MEASURING & OPTIONAL RIMS	FLAP & TUBE, OR TUBELESS	MASS	TREAD DEPTH	OVERALL WIDTH	OVERALL DIAMETER	STATIC LADEN RADIUS	REVOLUTIONS PER MILE
TL, TT OR TL* (*MAY BE USED WITH TUBE)	LOAD & SPEED INDEX UNIQUE POINT				KG / KPA	BAR	PSI	KM/H	MPH	CM²
395/85 R 20 TL*	XZL 2™ 168 K (164 L)	YES	Measuring 10.00 Optional 10.00W	20x10.00 20S	96.1 kg	20 mm	388 mm	1176 mm	534 mm	449
			Road	S	5600	8.5	120	110	68	913
			Cross Country	S	3640	3.6	52	70	43	1155
			Mud and Sand	S	3640	2.1	30	30	19	1584
395/90 R 560 TR TL In preparation	X® Force™ 2 160J (154K)	YES	Measuring 240TR	TUBELESS	110 kg	22 mm	390 mm	1252	577	423
			Road	S	4500	7.1	103	100	62	914
			Cross Country	S	4500	4.1	60	70	43	1334
			Mud and Sand	S	4500	2.1	30	30	19	1950
415/80 R 685 TR TL In preparation Calculated data	X® Force™ 2 164J	YES	Measuring 230-685TR	TUBELESS	119 kg	21 mm	402 mm	1331	610 mm	385
			Road	S	5000	7.6	110	100	62	918
			Cross Country	S	5000	4.4	64	70	43	1490
			Mud and Sand	S	5000	2.8	41	30	19	1877

XS™ X® FORCE™ S



7.50 R16 TL	XS™ 116/114 N	YES	Measuring 6.00G	16x6.00 16J	21.6 kg	10 mm	214 mm	826 mm	384 mm	636
			Road	S	1250	5.3	77	140	87	277
			Road	D	1180	5.3	77	130	81	265
			Cross Country	S	800	1.8	26	65	40	377
			Mud and Sand	S	800	1.0	15	20	12	542
14.00 R 20 TL*	XS™ 160/157 F	YES	Measuring 10.00W Optional 9.0, 10.0, 10.00V	20x10.00 20S	94.7kg	16.5 mm	369 mm	1238 mm	566 mm	427
			Road	S	4500	7.0	102	80	50	813
			Cross Country	S	3250	3.1	45	70	43	1146
			Mud and Sand	S	3250	1.6	23	30	19	1822
525/65 R 20.5 (20.5 R 20.5) TL	XS™ 173 F	YES	Measuring 16.00	TUBELESS	131 kg	16.8 mm	521 mm	1200 mm	548 mm	442
			Road	S	6500	8.0	120	80	50	1121
			Cross Country	S	4300	3.8	55	70	30	1298
			Mud and Sand	S	4300	2.2	32	30	19	1698
24 R 20.5 TL	XS™ 176 F	YES	Measuring 18.00	TUBELESS	180.1 kg	16.8 mm	602 mm	1374 mm	620 mm	388
			Road	S	7100	6.0	90	80	50	1563
			Cross Country	S	5500	3.4	49	70	30	1919
			Mud and Sand	S	5500	1.9	28	30	19	2920

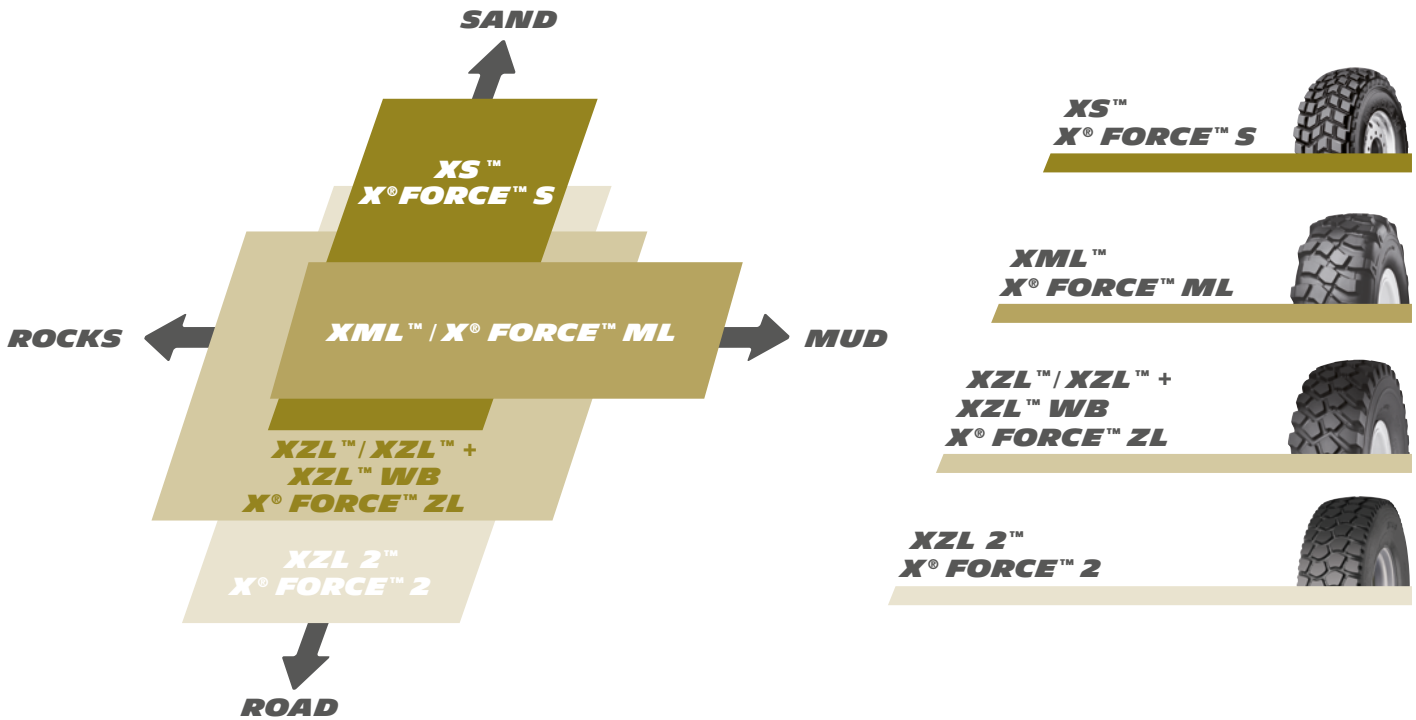
XML™ X® FORCE™ ML



SIZE	TREAD	M+S	RECOMMENDED MEASURING & OPTIONAL RIMS	FLAP & TUBE, OR TUBELESS	MASS	TREAD DEPTH	OVERALL WIDTH	OVERALL DIAMETER	STATIC LADEN RADIUS	REVOLUTIONS PER MILE
TL, TT OR TL* (*MAY BE USED WITH TUBE)	LOAD & SPEED INDEX UNIQUE POINT				KG / KPA	BAR	PSI	KM/H	MPH	CM²
325/85 R 16 TL	XML™ 137J (134K)	YES	Measuring 9.00	TUBELESS	54.9 kg	16.5 mm	327 mm	984 mm	449 mm	540
			Road	S	2300	4.5	65	100	62	604
			Cross Country	S	2300	3.1	45	70	43	831
			Mud and Sand	S	2300	1.6	25	30	19	1140
475/80 R 20 TL	XML™ 166 G	YES	Measuring 14.0V	TUBELESS	130.5 kg	23.5 mm	480 mm	1272 mm	581 mm	417
			Road	S	5300	6.0	87	90	55	1141
			Cross Country	S	4000	2.9	40	70	43	1572
			Mud and Sand	S	4000	1.6	25	30	19	2108
395/85 R 20 TL	XML™ 161 G	YES	Measuring 10.00 Optional 10.00W	280-20L 20S	96.8 Kg	23.7 mm	385 mm	1187 mm	543 mm	447
			Road	S	4625	7.0	102	90	55	874
			Cross Country	S	4625	4.8	70	70	43	1219
			Mud and Sand	S	4625	2.8	40	30	19	1619
12.00 R 20 TL*	XML™ 149/146 J	YES	Measuring 8.50 Optional 7.33, 7.50, 8.00, 9.00	20x8.50 20Q	76.2 Kg	19.5 mm	308 mm	1131 mm	526 mm	467
			Road	S	3250	7.2	105	100	62	787
			Cross Country	S	3250	4.1	60	70	43	997
			Mud and Sand	S	3250	2.3	35	30	19	1292
14.00 R 20 TL	XML™ 153 G (149 K)	YES	Measuring 10.00W Optional 9.00, 10.00V, 10.00	230-20L 20S	110.8 kg	24.4 mm	383 mm	1258 mm	581 mm	420
			Road	S	3650	6.2	90	90	56	935
			Cross Country	S	3650	3.5	50	70	43	1458
			Mud and Sand	S	3650	1.6	25	30	19	2273
395/90 R 560 TR TL	XML™ 154K (156 F)	YES	Measuring 240 TR	TUBELESS	110.2 kg	24.4 mm	392 mm	1256 mm	582 mm	420
			Road	S	3750	6.4	90	110	68	810
			Cross Country	S	3750	3.5	50	70	43	1267
			Mud and Sand	S	3750	1.7	25	30	19	1794
395/90 R 560 TR TL	X® FORCE® ML™ 158 G	YES	Measuring 240 TR	TUBELESS	118.4 kg	24.4 mm	392 mm	1256 mm	579 mm	421
			Road	S	4250	6.6	96	90	56	860
			Cross Country	S	4250	3.8	55	70	43	1317
			Mud and Sand	S	4250	1.9	28	30	19	1910
415/80 R 685 TR TL	XML™ 160 K	YES	Measuring 230 - 685TR	TUBELESS	111 kg	22.5 mm	404 mm	1330 mm	613 mm	395
			Road	S	4500	6.7	95	110	68	918
			Cross Country	S	4500	3.9	57	70	43	1490
			Mud and Sand	S	4500	2.5	36	30	19	1877

All the pressures are given for nominal conditions. Extension of use may be allowed for specific needs. Please contact your Michelin sales representative.

MICHELIN MILITARY TYRE USE



MILITARY PRODUCT AVAILABILITY

SIZE, TREAD, LOAD INDEX, SPEED SYMBOL

	XZL / XZL+ X°FORCE™ ZL	XZL 2 / X°FORCE™ 2	XML / X°FORCE™ ML	XS / X°FORCE™ S
7.50 R 16	116N			116/114N
325/85 R 16	140K		137J (134K)	
255/100 R 16 (9.00 R 16)	126K (134J)			
11.00 R 16	135K			
275/80 R 20 (10.5 R 20) (MPT)	128K			
335/80 R 20 (12.5 R 20) (MPT)	141K			
365/80 R 20 (14.5 R 20) (MPT)	152K			
475/80 R 20			166G	
365/85 R 20	164G			
395/85 R 20	168G (161J)	168K (164L)	161G	
10.00 R 20	146/143K			
11.00 R 20	150/146K			
12.00 R 20	154/149K		149/146J	
14.00 R 20	164/160J (166G)		153G (149K)	160/157F
16.00 R 20	173G			
525/65 R 20.5 (20.5 R 20.5)				173F
24 R 20.5				176F
24 R 21	176G			
395/90 R 560 TR		160J (154K)	154K	
395/90 R 560 TR			158G	
445/65 R 22.5	168 G			
13 R 22.5	154/150K			
415/80 R 685 TR		164J	160K	

SPEED INDEX

SI KM/H	D	E	F	G	J	K	L	M	N
	65	70	80	90	100	110	120	130	140

LOAD INDEX

LI	Kg	LI	Kg	LI	Kg	LI	Kg
106	950	124	1600	142	2650	160	4500
107	975	125	1650	143	2725	161	4625
108	1000	126	1700	144	2800	162	4750
109	1030	127	1750	145	2900	163	4875
110	1060	128	1800	146	3000	164	5000
111	1090	129	1850	147	3075	165	5150
112	1120	130	1900	148	3150	166	5300
113	1150	131	1950	149	3250	167	5450
114	1180	132	2000	150	3350	168	5600
115	1215	133	2060	151	3450	169	5800
116	1250	134	2120	152	3550	170	6000
117	1285	135	2180	153	3650	171	6150
118	1320	136	2240	154	3750	172	6300
119	1360	137	2300	155	3875	173	6500
120	1400	138	2360	156	4000	174	6700
121	1450	139	2430	157	4125	175	6900
122	1500	140	2500	158	4250	176	7100
123	1550	141	2575	159	4375		

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