
PDF about Tires

AUTOPISTA

- Example: 205/40 R 17 84V
 - 205 = Width
 - 40 = Rate (40% de 205)
 - R = Radial
 - 17 = Diameter (dimension in inches)
 - 84 = Load Index (500 kg)
 - V = Speed Index (max. 240 kph)

Speed Index



SI	Max. speed for passenger car tyres	
M	81 mph ¹⁾	130 km/h ¹⁾
P	93 mph	150 km/h
Q	100 mph	160 km/h
R	106 mph	170 km/h
S	112 mph	180 km/h
T	118 mph	190 km/h
H	130 mph	210 km/h
V	150 mph	240 km/h
W	169 mph	270 km/h
Y	187 mph	300 km/h
(...Y)	over 187 mph ²⁾	over 300 km/h ²⁾
ZR	over 150 mph	over 240 km/h

Load Index



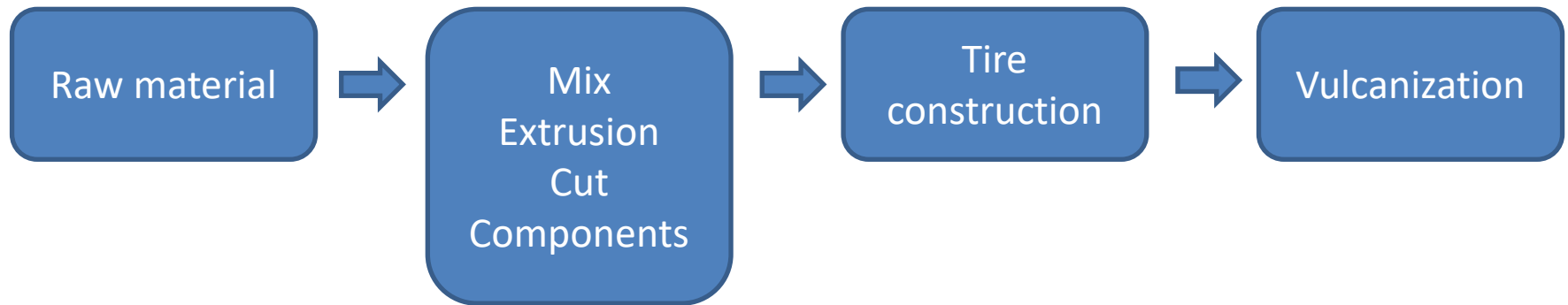
LI	kg	LI	kg	LI	kg	LI	kg	LI	kg
50	190	65	290	80	450	95	690	110	1060
51	195	66	300	81	462	96	710	111	1090
52	200	67	307	82	475	97	730	112	1120
53	206	68	315	83	487	98	750	113	1150
54	212	69	325	84	500	99	775	114	1180
55	218	70	335	85	515	100	800	115	1215
56	224	71	345	86	530	101	825	116	1250
57	230	72	355	87	545	102	850	117	1285
58	236	73	365	88	560	103	875	118	1320
59	243	74	375	89	580	104	900	119	1360
60	250	75	387	90	600	105	925	120	1400
61	257	76	400	91	615	106	950	121	1450
62	265	77	412	92	630	107	975	122	1500
63	272	78	425	93	650	108	1000	123	1550
64	280	79	437	94	670	109	1030	124	1600

Tire functions

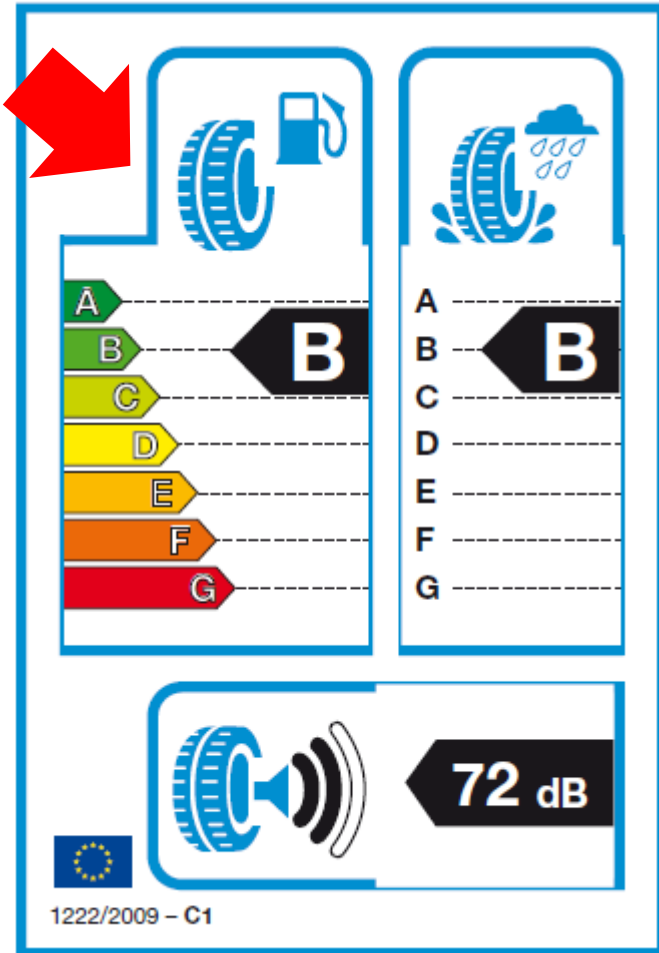


- Transmit longitudinal force for acceleration and braking.
- To transmit lateral force for cornering.
- To transmit vertical force to support the weight of the vehicle.

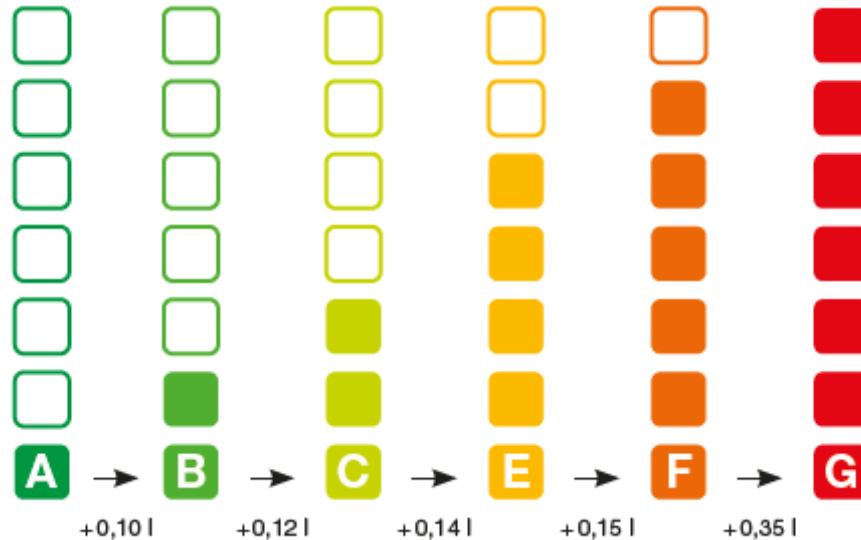
Manufacturing process of a TIRE



European Label

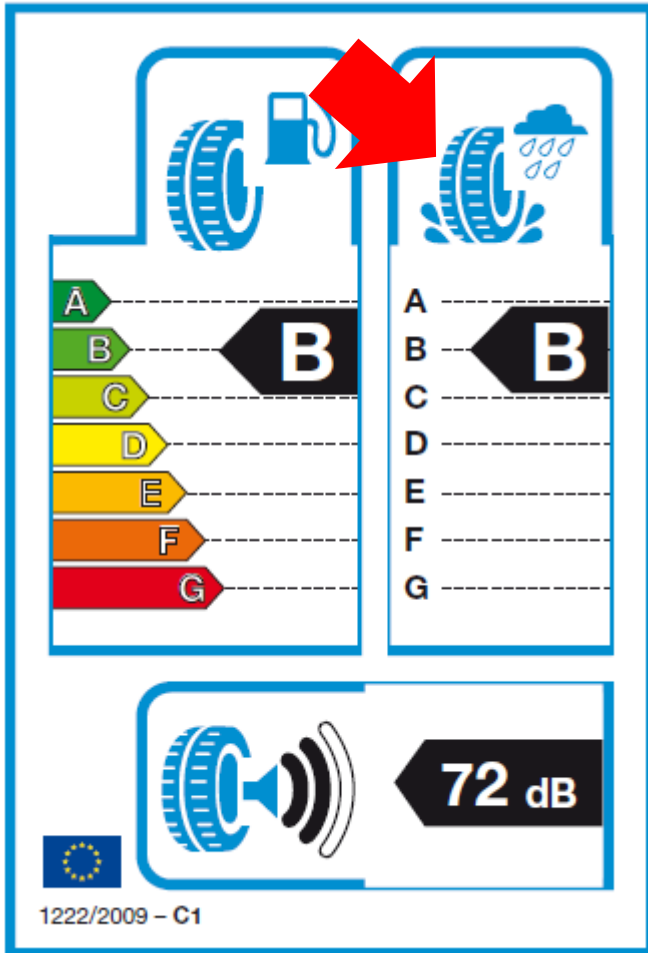


Rolling Resistance

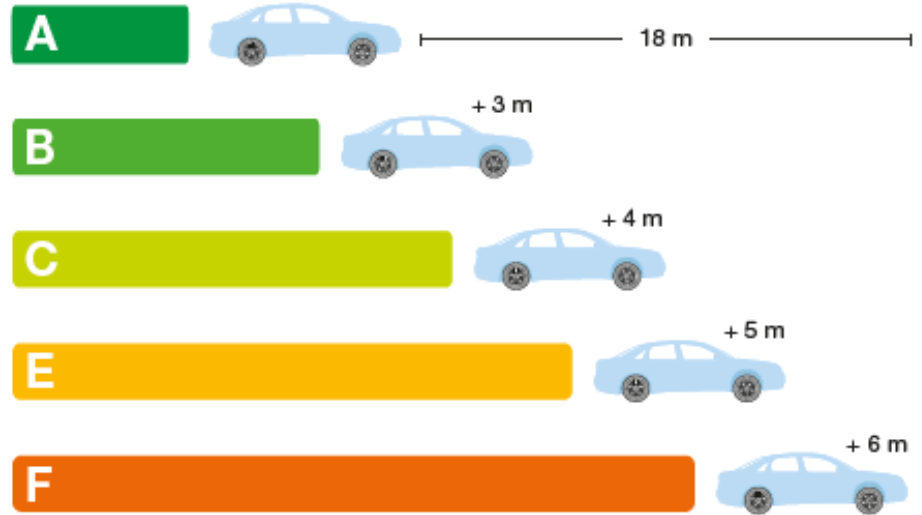


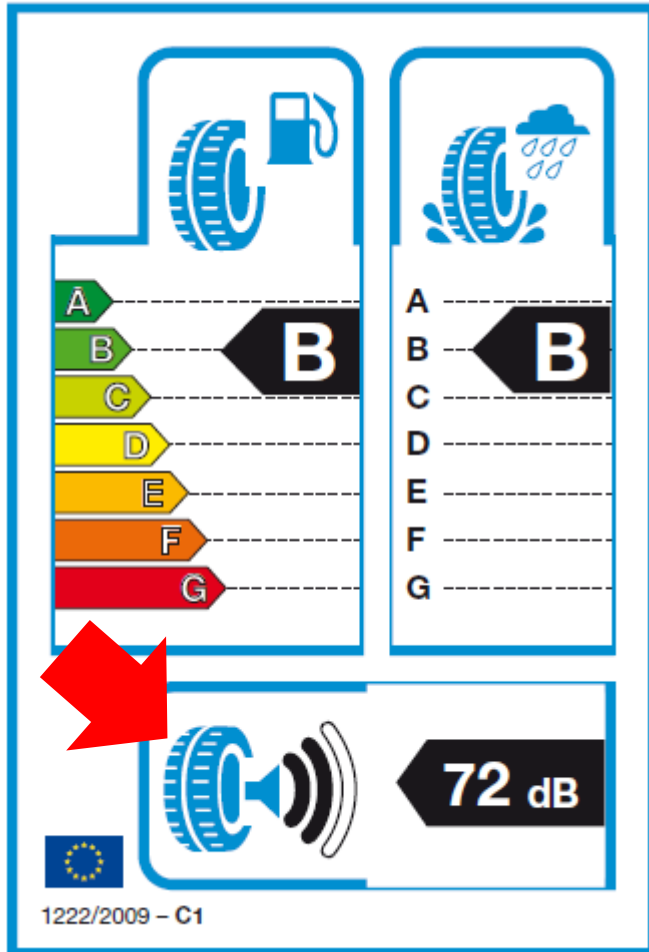
Source: Yokohama

Additional liters per 100 km with average fuel consumption of 6,6 l per 100 km.



Wet braking





NVH

- One wave: quiet (3 dB or more below the limit).
- Two waves: moderate (between the limit and 3 dB below).
- Three waves: Noisy (above the limit).

Ideal tire pressure



The image shows a white rectangular tire pressure label for a blue car. The label features a car silhouette, a QR code, and a table of recommended tire pressures. The table is organized by vehicle load (1-3 people vs. 4-5 people) and axle (front vs. rear). Tire specifications are listed on the left side of the table.

S-MAX / GALAXY
v < 160 km/h

bar/psi/kPa

FT4A-1532-AB

Tire Specification	1-3 [Person Icon]		4-5 [Person + Luggage Icon]	
	Front	Rear	Front	Rear
235/55 R 17 103 V 235/55 R 17 103 W	2,4/35/240	2,7/39/270	2,4/35/240	3,1/45/310
235/50 R 18 101 V 235/50 R 18 101 W 245/45 R 19 102 W	2,4/35/240	2,8/41/280	2,2/32/220	3,2/46/320
T155/70 R 17 110 M	4,2/60/420			