DRAFT AMENDMENT ISO 4000-1:2001/DAmd 2

ISO/TC **31**/SC **3** Secretariat: **AFNOR**

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Passenger car tyres and rims —

Part 1:
Tyres (metric series)

AMENDMENT 2

Pneumatiques et jantes pour voitures particulières —

Partie 1: Pneumatiques (série millimétrique)

AMENDEMENT 2

ICS 83.160.10

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Foreword

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Amendment 2 to ISO 4000-1:2002 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 3, *Passenger car tyres and rims*.

— *Part 1 : Tyres (metric series)*

Passenger car tyres and rims — Part 1: Tyres (metric series)

Add new nominal rim diameter codes 24, 25 and 26 to Table 1. The revised table is :

Table 1 — Nominal rim diameter code

Nominal rim diameter code	Nominal rim diameter, D_r mm
10	254
12	305
13	330
14	356
15	381
16	406
17	432
18	457
19	483
20	508
21	533
22	559
23	584
24	610
25	**635**
26	**660**

Annexe C
(normative)

Add a table C.3 – Tyres load capacity at various inflation pressures for speeds over 160 km/h.

Table C.3 — Inflation pressure adjustment for vehicle speed

(Adjustment to be made to the pressure required for the application load)

VEHICLE OPERATING SPEED	SPEED SYMBOL						
(km/h)	S	T	U	H	V	W	Y
170	+ 8 %	+ 8 %	+ 8 %	+ 8 %	+ 8 %		
180	+ 8 %	+ 8 %	+ 8 %	+ 8 %	+ 8 %	+ 4 %	
190		+ 13 %	+ 13 %	+ 13 %	+ 13 %	+ 4 %	
200			+ 13 %	+ 13 %	+ 13 %	+ 8 %	+ 4 %
210				+ 17 %	+ 17 %	+ 13 %	+ 4 %
220					+ 17 %	+ 17 %	+ 4 %
230					+ 17 %	+ 21 %	+ 8 %
240					+ 17 %	+ 25 %	+ 13 %
250						+ 25 %	+ 17 %
260						+ 25 %	+ 21 %
270						+ 25 %	+ 25 %
280							+ 25 %
290							+ 25 %
300							+ 25 %

NOTE The calculated inflation pressure based on the load and speed shall not be less than the following :

Speed	≤ 160 km/h	> 160 km/h
Inflation	140 kPa	180 kPa

Examples of Calculation of Minimum Required Inflation Pressure

Example 1 – Heavy Loaded Condition

Tyre : P305/45R17 109Y

Vehicle Speed Capability : 270 km/h

Maximum Vehicle Load on tyre : 1 030 kg (100 %)

a) Inflation Pressure required based on Load = 240 kPa

b) Percentage increase in inflation pressure based on speed = 25 %

(from Adjustment table for Y rated tire at 270 km/h)

c) $P_{f(L,V)}$ = 240 kPa + 25 % (240 kPa) = 300 kPa

d) $P_{(min\ inf)}$ for speed 270 km/h = 180 kPa

e) Select greater inflation of $P_{f(L,V)}$ or $P_{(min\ inf)}$ from above : 300 kPa

In the case of the heavily loaded condition, the inflation pressure based on load and speed adjustment is selected.

Example 2 – Light Loaded Condition

Tyre : P305/45R17

Vehicle Speed Capability : 270 km/h

Maximum Vehicle Load on tyre : 618 kg (60 %)

a) Inflation Pressure required based on Load is 110 kPa using the following method :

(Actual Load / Max Load based on Load Index)$^{1.538}$ × Pressure corresponding to the maximum load of the tyre (LI)

NOTE 1.538 is the reciprocal of the ISO pressure coefficient of 0.65

(618 kg / 1 030 kg)$^{1.538}$ × 240 kPa = 110 kPa

b) Percentage increase in inflation pressure based on speed = 25 %

(from Adjustment table for Y rated tyre at 270 km/h)

c) $P_{f(L,V)}$ = 110 kPa + 25 % (110 kPa) = 138 kPa

d) $P_{(min\ inf)}$ for speed 270 km/h = 180 kPa

e) Select greater inflation of $P_{f(L,V)}$ or $P_{(min\ inf)}$ from above : 180 kPa

In the case of the lightly loaded condition, the minimum inflation value is selected.