

Comments from India on the GTR for Passenger Vehicle Tyres under formulation by the Working Group on Tyres

The following are the comments on Tyre Document gtr-09-02e Draft, 10th June 2010 document.

Clause 3. Definition

Proposed change It is necessary to define the "Maximum Inflation Pressure" for tyre which has significance similar to Maximum application Load capacity & Maximum Load Rating. The proposed definition is,

"Maximum Inflation Pressure : This is the maximum cold inflation pressure permitted in tyre and it is recommended that the cold inflation pressures be limited to 320 kPa for sizes having a speed symbol upto T, to 350 kPa for sizes having speed symbol H, V, W or Y, Reinforced tyres and ZR marked tyres."

Justification Vehicle camber angles, especially under severe driving conditions, have an influence on tyre performance. In order to counteract this influence, it may be necessary to increase the inflation pressure by a factor K_s (camber factor) as defined in Engineering Design Information of ETRTO or reduce the load. For a given size, the calculated inflation pressure shall not exceed the maximum inflation pressure under such situation.

Clause 3. Definition – Principal grooves

Comments Does this definition limit the positioning of TWIs only in principal grooves ?

Clause 3. Definition – PSI Index

Comments Table reference not given. Add "as per appendix 4"

Justification It will be easy to locate the PSI index .

Clause 3. Definition – Tread Wear Indicators (TWI)

Proposed change May be included at the end of note - "Beyond which tyre is rendered un-usable and shall be removed or retreaded"

Clause 4. Requirements

Comments on Clause 4.1 For plant code registration the detailed procedure & registering site address to be provided.

Justification For example - The current system calls for presence of an agent in US for non US companies.

Comments on Clause The inscription of word "XL" or "Reinforce" or "Extra Load" should be kept

4.2.2.9

Justification To provide an option for wide range of products already using these words.

Comments on Clause 4.2.2.16 “The suffix “CP” after the rim diameter marking referred to in paragraph Appendix 3...” is not reflecting anywhere.

Justification “CP” as per ETRTO is – Commercial Vehicle tires for service on motor caravans

Clause 4.4 Physical Dimensions of Radial Pneumatic Tyres

Comments on Clause 4.4.4.2 Instead of “adjust the pressure to that specified by the manufacturer”, it should be specified, for example, as specified for tyre strength testing in tabular format for standard & reinforced tyres. (eg Section 3.3 of ETRTO PC tyres)

Justification Otherwise the dimensional consistency would not be there.

Comments on Clause 4.4.5.4 Instead of including “Bureau of Indian Standards (BIS)”, please include Indian Tyre Technical Advisory Committee (ITTAC)”. .

Justification BIS is a regulatory standard and is governed by government bodies, whereas ITTAC is committee for Indian tyre standards like ETRTO, JATMA, T&RA etc.

Clause 4.5 Strength Test

Comments on Clause 4.5.1 and 4.5.2 The pressures specified in the tables against size designation & “Test Type” are referring to which pressure? Also it is not including the pressure like 250 & 290 kPa marked on tyre (in line with ETRTO)

Strength Test	Passenger Tyres				
	kPa				
Inflation pressure marked on the tyre	240/250	280/290	300	340	350
Test inflation	180	220	180	220	180

Justification It is very essential to ‘clearly identify’ what is marked on tyre and what needs to be followed.

Clause 4.6 Tubeless Tyre Bead Unseating Resistance Test

Comments on Clause 4.6.2.2 The pressures specified in the tables against “Test Type” are referring to which pressure ? Also it is not including the pressure like 250 & 290 kPa marked on tyre

Bead Unseat Test	Passenger Tyres				
	kPa				
Inflation pressure marked on the tyre	240/250	280/290	300	340	350
Test inflation	180	220	180	220	180

Justification It is very essential to clarify between what is “marked on tyre” and what needs to be followed.

Section II

Clause 4.8, 4.9 & 4.10 Endurance Test, Low Inflation Pressure Performance Test, Hi-speed Performance Test

Comments on Clause Instead of removing testing on 2.0 m drum it should be kept along with 1.7m as an additional option

4.8.3.1,
4.9.3.2 &
4.10.3.1

Justification Many manufacturers have 2.0 m drums for testing and it would be better to have optional standards for 2.0 m drums also.

Comment on clause During the test the ambient temperature shall be at least 38 deg C. No tolerance or max. limit specified. It may be $38\pm 3^{\circ}\text{C}$.

4.8.3.2,
4.9.3.5 &
4.10.3.6

Justification It is always better to have tolerances to avoid inconsistency in the results. It can be specified similar to **clause 4.12.1.7**

Clause 4.11 Tyre Wet Grip Test

Comment on clause In the formula for measured value corrected for effects of temperature
 $\text{pbfc} = \text{pbfc}(\text{measure}) + 0.003 \cdot 5(t-20)$ The “Dot” shown between 0.003 & 5 is not clear, as whether it means a multiplication or else.

4.11.2.1

Comments on clause Clause number typographical error as 14.11.2.2, instead of 14 it should be 4

4.11.2.2