Transmitted by the experts of the European Tyre and Rim Technical Organisation

Informal document **GRBP-76-24**
(76th GRBP, 5-7 September 2022,
agenda item 4 (c))

I. Proposal to amend documents ECE/TRANS/WP.29/GRBP/2022/23

The changes are marked in **bold** for added text and strike through for deleted text, all in red font.

Paragraph 6.4.1., amend to read:

"6.4.1. For class C1 tyres, tested in accordance with either procedure given in Annex 9 to this Regulation, the tyre shall meet the following requirements:

Category of use		*Wet grip index (G_B)*
Normal tyre		≥ 0.88
	Tyre with a nominal aspect ratio equal to or less than 40, a section width equal to or higher than 235 mm and suitable for speeds equal to or greater than 300 km/h	**≥ 0.80**
Snow tyre		~~≥ 0.80~~ **0.88**
	~~"Snow~~**Snow tyre that is classified as tyre** for use in severe snow conditions~~"~~ ~~and with a speed category symbol ("R" and above, including "H") indicating a maximum permissible speed~~ **suitable for speeds** greater than 160 km/h	≥ 0.80
	~~"Snow~~**Snow tyre that is classified as "tyre** for use in severe snow conditions~~"~~ ~~and with a speed category symbol ("Q" or below excluding "H") indicating a maximum permissible speed not greater than~~ **suitable for speeds equal to or less than** 160 km/h	≥ 0.70
	Ice grip tyre	≥ 0.70
Special use tyre		~~Not defined~~ **≥ 0.80**
	Special use tyre that is classified as tyre for use in severe snow conditions	**≥ 0.80**

~~For normal tyres with speed category symbol indicating a maximum permissible speed equal to or greater than 300 km/h and aspect ratio equal to or lower than 40, the limit shall be decreased by 0.08.~~"

Add new Paragraph 6.4.2., to read:

"**6.4.2.** **For class C2 tyres, evaluated in accordance with the procedure given in paragraph 3. of Annex 9 to this Regulation, the tyre shall meet the following requirements:**

Category of use		*Wet grip index (G_B)*	
		Other	*Traction tyres*
Normal tyre		**≥ 0.82**	**≥ 0.74**
Snow tyre		**≥ 0.82**	**≥ 0.74**
	Snow tyre **that is classified as tyre** for use in severe snow conditions	**≥ 0.74**	**≥ 0.74**
Special use tyre		**≥ 0.74**	**≥ 0.74**
	Special use tyre that is classified as tyre for use in severe snow conditions	**≥ 0.74**	**≥ 0.74**

"

Add new Paragraph 6.4.3., to read:

"**6.4.3.** **For class C3 tyres, evaluated in accordance with the procedure given in paragraph 3. of Annex 9 to this Regulation, the tyre shall meet the following requirements:**

Category of use		*Wet grip index (G_B)*	
		Other	*Traction tyres*
Normal tyre		**≥ 0.66**	**≥ 0.54**
Snow tyre		**≥ 0.54**	**≥ 0.54**
	Snow tyre **that is classified as tyre** for use in severe snow conditions	**≥ 0.54**	**≥ 0.54**
Special use tyre		**≥ 0.54**	**≥ 0.54**
	Special use tyre that is classified as tyre for use in severe snow conditions	**≥ 0.54**	**≥ 0.54**

"

Annex 1, item 8.3., amend to read:

"8.3. Wet adhesion level of tyres in worn state of representative size, see paragraph 2.7. of this Regulation, as per the test report in the appendix to Annex 9 **in the case of class C1 tyres or as per evaluation performed according to paragraph 3. of Annex 9 in the case of classes C2 and C3 tyres**[2]: ..... (G_B) using the vehicle or trailer method[2] "

Annex 9, Title, amend to read

"Procedure for determining ~~measuring~~ the adhesion on wet surfaces of tyres in worn state"

Paragraph 2., amend to read
"2. **Test procedure for ~~Tyres~~ tyres** of ~~Class~~ **class** C1
[…]"

Paragraph 2.3.3., amend to read:

"2.3.3. Atmospheric conditions

The wind conditions shall not interfere with wetting of the surface (wind-shields are allowed).

The wetted surface temperature and the ambient temperature shall be between:

Category of use	*Wetted surface temperature*	*Ambient temperature*
Normal ~~tyres~~**tyre**	12 °C – 35 °C	12 °C – 40 °C
Snow ~~tyres~~**tyre**	5 °C – 35 °C	5 °C – 40 °C
Snow ~~tyres~~**tyre** **that is classified as tyre** for use in severe snow conditions	5 °C – 20 °C	5 °C – 20 °C
Special use ~~tyres~~**tyre**	~~not applicable~~ **5 °C – 35 °C**	~~not applicable~~ **5 °C – 40 °C**
Special use tyre that is classified as tyre for use in severe snow conditions	**5 °C – 20 °C**	**5 °C – 20 °C**

Moreover, the wetted surface temperature shall not vary during the test by more than 10 °C.

The ambient temperature shall remain close to the wetted surface temperature; the difference between the ambient and the wetted surface temperatures shall be less than 10 °C."

Table 2, amend to read:

" Table 2

Category of use	ϑ_0 *(°C)*	*a*	*b* $(°C^{-1})$	*c* $(°C^{-2})$	*d* (mm^{-1})
Normal tyre	20	+0.90996	−0.00179	−0.00013	−0.10313
Snow tyre	15	+0.81045	−0.00004	−0.00019	−0.05093
Snow tyre **that is classified as tyre** for use in severe snow conditions	10	+0.71094	+0.00172	−0.00025	+0.00127
Special use tyre	**15**	**+0.81045**	**−0.00004**	**−0.00019**	**−0.05093**
Special use tyre that is classified as tyre for use in severe snow conditions	**10**	**+0.71094**	**+0.00172**	**−0.00025**	**+0.00127**
~~Special use tyre~~	~~not defined~~				

"

Table 4, amend to read:

"Table 4

Category of use		ϑ_0 (°C)	*a*	*b* ($°C^{-1}$)	*c* ($°C^{-2}$)	*d* (mm^{-1})
Normal tyre		20	+0.99655	−0.00124	+0.00041	+0.06876
Snow tyre		15	+0.94572	−0.00032	−0.00020	+0.08047
	Snow tyre **that is classified as tyre** for use in severe snow conditions	10	+0.89488	+0.00061	−0.00080	+0.09217
Special use tyre		**15**	**+0.94572**	**−0.00032**	**−0.00020**	**+0.08047**
	Special use tyre that is classified as tyre for use in severe snow conditions	**10**	**+0.89488**	**+0.00061**	**−0.00080**	**+0.09217**
~~Special use tyre~~		~~not defined~~				

"

II. Justification

1. This proposal is aimed to introduce provisions to allow the type approval of special use tyres that fulfil the requirements for snow performance as laid out in Annex 7. The respective marking related to the “Alpine” symbol has been considered for those tyres complying with these requirements.

2. Based on preliminary technical assessment submitted through document GRBP-71-26 allowances for rolling sound emission and rolling resistance could be needed for special use tyres that are classified as tyres for use in severe snow condition. However, special use tyres that are classified as tyres for use in severe snow condition currently do not exist. Therefore in this document allowances for rolling sound emission and rolling resistance are not proposed considering that the performance of such tyres cannot be assed until are they developed.