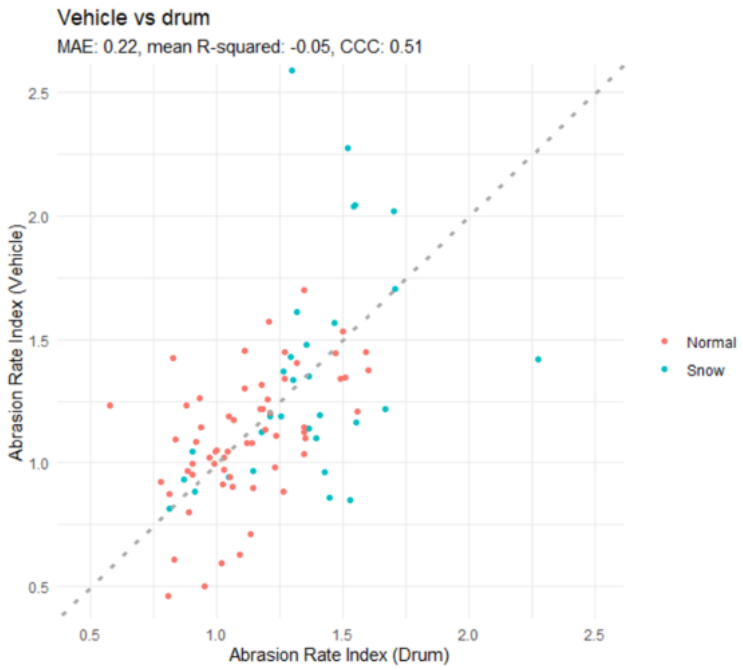
JASIC feedback to TA-32-13

JAPAN AUTOMOBILE STANDARDS INTERNATIONALIZATION CENTER

TF TA 32nd session
23rd April 2025

Key decisions for C1 limits proposal

1. Can we proceed on limit setting for both test methods based on current correlation?



From RDW presentation: comparing methods & temperature correlations, given at TAPP

- Correlation of the two methods is currently far from ideal
- This presents high risk of a vehicle passing a limit on one method, but not the other, reducing the potential impact of regulation

Questions:

- Do we think that both methods can be used for the limit setting proposal? (within the next 7 weeks)
- If ***yes***, should the same limits apply to both methods?
- If ***no***, do we need to consider limit setting on one method only whilst working to improve correlation over the longer term?

1. Can we proceed on limit setting for both test methods based on current correlation?

JASIC Position

The positioning of MA test and COVA test should be considered.
COVA test was conducted separately from MA test because MA test is for examining the limit value and the number of repetitions was considered necessary to study the correlation between the two test methods.

Based on the results of COVA test, There is a correlation between the two test methods.
Therefore, we consider that

- Both test methods can be applicable, and it is appropriate to adopt both test methods.
- The same limits can be set regardless of the test method.
  (There is no clear reason to change the limits by test method.)

On the other hand, the fact that MA test results of both methods are based on only 1 repetition and include variation may be a major reason for the seemingly low correlation.
Although currently information is limited, factors contributing to outliers are also examined.

- Outliers would be reduced if the 3PMSF SS:Q data were excluded.
- Other outliers continue to be examined.

It is difficult to significantly improve the precision of the test method in a short-term, but discussion is needed in the TF TA on whether long-term efforts to improve the precision of the test method are necessary.
If precision improvement activities are to be carried out, resources for further activities also need to be secured.

2. What tyres should be in/out of scope for limit setting?

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2. **What tyres should be in/out of scope for limit setting?**
3. **What tyre groupings should be used for limits?** (e.g. one limit for all, different limits for normal and 3PMSF, further groupings?)
4. What limit values
5. How should meas setting?

TAPP review so far has shown some of the non-R117 tyres to be outliers in their abrasion behaviour

Should we limit to R117 approved tyres only?

JASIC Position

Need to exclude Japanese 3PMSF tyres with speed symbol Q, for which ice grip performance is a priority, from scope.
Speed Symbol seems to be not appropriate definition to segregate it.
JASIC would like to amend the test conditions for ice grip test method in R117 to address this.

2. What tyres should be in/out of scope for limit setting?

Premise:
Ice grip tyres as defined in R117 are out of scope for the new regulation.
R117 contains ice grip tyre definitions and requirements.

Why Japanese 3PMSF tyres with SS Q are not R117 ice grip tyre

Typical Japanese winter road conditions

・Daytime temp. rise to around **0°C** → Ice surfaces melt during the day and freeze again in the evening or night.

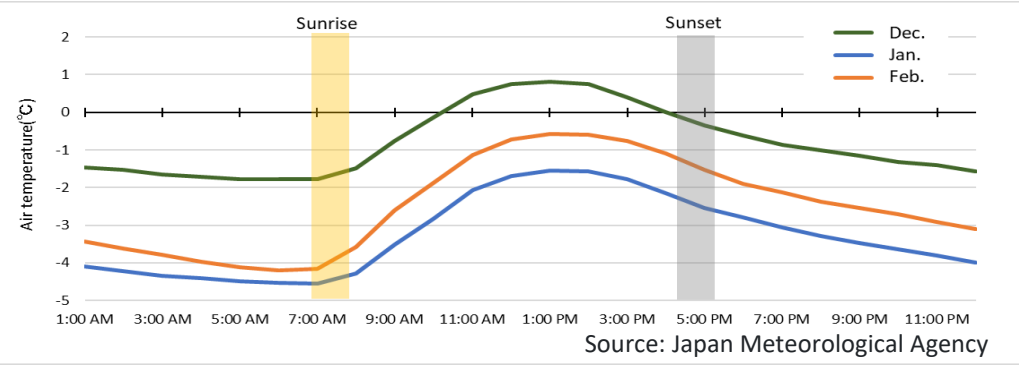
・Roads are covered with very slippery ice, but surface is black which makes it hard to detect icy conditions.

3PMSF tyres with SS Q focus on ice grip performance in the temperature range around 0°C.

→Different conditions from the test conditions of R 117 ice testing.

R117 ice grip tyre :Tyres with ice grip performance 118% higher than SRTT16
Test methodology :Comparison of deceleration on ice surfaces between candidate tyres and SRTT16
Ice temperature condition :-15℃~**-5℃**

Temperatures by time - Sapporo, Japan



Source: Japan Meteorological Agency


Covered with very slippery ice

2. What tyres should be in/out of scope for limit setting?

How to exclude them from the scope: 2 solutions are possible

- Exclude 3PMSF tyres with SS Q from the scope of new regulation:
  This can be separated for now but is undesirable in view of the future.
  Potential risk of exclusion of unintended tyres

- Update the definition of R117 Ice grip tyre:
  This can be addressed by amending the ice temperature to -2°C in the test conditions.
  Tyres can be excluded based on its performance.

How to update the definition of R117 Ice grip tyre

Option 1 : Update ice surface temperature

Annex8

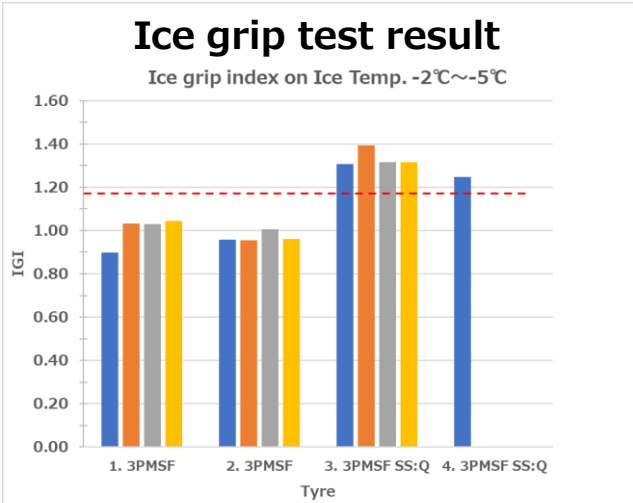
2.1.1.4. The air temperature, measured about one meter above the ground, shall be between −15 °C and +4 °C; the ice temperature, measured on the surface of the conditioned line, shall be between −15 °C and −~~5~~ **2** °C. Both air and ice temperatures shall be reported for each tested tyre.

Option 2 : Add another ice surface temperature

Just example

✓ Surface temperature condition shall be meet either
  between −15 °C and −5 °C
  between −5 °C and −2 °C

✓ Temperature conditions shall be considered for COP



Ice surface temperature : **-5 °C ~-2 °C**
4 Test tyres
- 2 SKUs of 3PSMF
- 2 SKUs of 3PMSF with **SS=Q**

4 test centers

3. What tyre groupings should be used for limits?

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4. What limit values should be used?
5. How should measurement uncertainty be accounted for within the limit setting?

JASIC Position

The reference tyres used for Normal and Snow tyres are different. As the performance of the reference tyre is not equal, there is no necessity for them to have the same limit value.

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Should the limits be determined based on:

- the desired environmental outcome? (e.g. X% reduced emission factor)
- the performance of the current market? (e.g. median performing tyre or exclusion of Y% of current market)

4. What limit values should be used?

JASIC Position

- Position on proposed co-chairs' limit value.
  Co-Chairs have proposed limit values of Abrasion Index 1.0. However, this limit affects more than 50% of the tyres on the market. Therefore, it is considered difficult to comply with the regulation, including the timeline of the regulation.
  In order to improve products that do not meet the regulation value, trade-offs with other performance will be needed. An example of a trade-off performance is wet grip performance, where excessive abrasion limits may lead to a reduction in WGI levels in the market.
  Abrasion limit applies to new products 1 year and 6 months after the entry into force of the regulation, and 3 years and 6 months for existing products. It is not realistic to replace approximately 50% of the products on the market in this short period.

- Consideration of limit value level
  Appropriate limit value levels are still under consideration.
  For example, in the case of Normal tyres, if the products that need to be replaced are around 15% of the market, it might be feasible to keep the trade-off performance from deteriorating and the timeline may be more realistic. In the case of 3PMSF tyres, due to the particular difficulty of balancing safety and abrasion performance, mitigation is required compared to the normal tyre limit value.

provisional

	Replace 15% products (Cumulative probability 85%)
Normal	1.36

*Calculated from indoor drum test method test results

5. How should measurement uncertainty be accounted for within the limit setting?

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Should the limits be inclusive of any determined measurement uncertainty margin, or should this be stated separately?

Should we consider different measurement uncertainty margins for approval and COP?

JASIC Position

Given the current precision of the test method, the margins at COP and certification should be considered. The MU of the indoor drum test method is under calculation.
R117 can be a reference for how the margin should be granted.

- COP
  - Noise : +1dB(A)
  - RRC : +0.3 N/kN
- Measurement errors
  - Noise : -1 dB(A) from the measured value and rounded down to the nearest whole number.