



ऊर्जा दक्षता ब्यूरो

भारत सरकार, विद्युत मंत्रालय

BUREAU OF ENERGY EFFICIENCY

Govt. of India, Ministry of Power

**BUREAU OF ENERGY EFFICIENCY (BEE)
VOLUNTARY PROGRAMME FOR ENERGY EFFICIENCY STAR
LABELLING OF TYRES, 2022**

SCHEDULE 30

Version 2.0 (March 2025)



UPDATES IN VERSION 2.0

S. No	Details
1	Revised Star Rating Table
2	Labeling Fees for BEE's S&L program
4	Detailing of Check Testing Procedure

INDEX

Sr. No.	Title	Page Number
1	SCOPE	03
2	NORMATIVE REFERENCES	03
3	TERMS & DEFINITIONS	03
4	ELIGIBILITY FOR PARTICIPATION	04
5	TESTING GUIDELINES	05
6	TEST REPORT	05
7	STAR RATING PLAN	05
8	BRAND & MODEL REGISTRATION	06
9	FEES	06
10	CHECK TESTING	07
11	LABEL DESIGN AND MANNER OF DISPLAY	08
12	ANNEXURE – A	
13	ANNEXURE – B	

1. SCOPE

- (i) This schedule outlines the requirements for manufacturers, importers, and sellers in India to participate in the energy labelling programme for C1, C2, and C3 tyres, as specified under AIS:142.
- (ii) This schedule outlines the terminology, general guidelines, and testing methods for tyres as per AIS: 142, focusing on the methodology for testing the Rolling Resistance Coefficient (RRC) and Wet Grip Index.
- (iii) It also specifies the star rating bands for tyres based on the Rolling Resistance Coefficient (RRC). The schedule applies to the base model, its batches, and their variant model tyres.
- (iv) The programme applies exclusively to replacement tyres.

2. NORMATIVE REFERENCES

This schedule should be read in conjunction with the following standards, including any revisions and amendments, for star labeling:

Parameter	Reference
Class C1 Tyres	Tyres conforming to IS 15636
Class C2 Tyres	Tyres conforming to IS 15636 and identified by a load capacity index (in single formation) of 121 or lower, with a speed category symbol of "N" or higher. Additionally, tyres marked with "LT" or "C"
Class C3 Tyres	Tyres conforming to IS 15636 and identified by: (a) A load capacity index (in single formation) of 122 or higher, and/or tyres that are not marked with "LT" or "C"; or (b) A load capacity index (in single formation) of 121 or lower, with a speed category symbol of "M" or lower, and/or tyres that are not marked with "LT" or "C".
Rolling Resistance Coefficient (RRC)	As per AIS 142
Wet Grip Index	As per AIS 142

3. TERMS & DEFINITIONS

For the purposes of this schedule, the following definitions, in addition to those provided in IS 15636 and/or AIS 142 (including any amendments made from time to time), shall apply:

- (i) **Tyre:** A flexible, rubber-based product, typically mounted on a wheel rim, designed to provide support for the load of a vehicle, ensure traction with the road surface, and absorb shocks or impacts encountered during vehicle movement. It is generally inflated with air or another gas to form a cushion, facilitating the vehicle's safe and efficient operation;
- (ii) **Family of Tyres:** Tyres are considered part of the same family share the following characteristics, even if they have different brand names, trade names, trade descriptions, or trademarks:
 - (a) The manufacturer's name;
 - (b) The tyre class;
 - (c) The tyre structure;

- (d) The category of use, such as regular tyres, snow tyres, or special-use tyres;
- (e) For Class C1 tyres, those submitted for approval based on their performance for adhesion on wet surfaces. This includes regular tyres or snow tyres with a speed category of Q or below excluding H (≤ 160 km/h), or those with a speed category of R and above, including H (> 160 km/h);
- (f) The tread patterns.
- (iii) **Rolling Resistance Force (Fr)**: Force resisting the motion of a rolling tyre on a surface.
- (iv) **Rolling Resistance Coefficient (RRC)**: The ratio of the Rolling Resistance Force (Fr) to the Load on the Tyre. It is an important parameter for evaluating the energy efficiency of tyres, as it influences fuel consumption and CO₂ emissions. A lower RRC indicates better fuel efficiency and lower environmental impact.
- (v) **Wet Grip Index (WGI)**: It is a measure of a tyre's ability to maintain traction on wet surfaces. It is a numerical value that represents how well a tyre performs in wet conditions, specifically in terms of its braking performance on wet roads. The higher the WGI, the better the tyre performance in wet conditions.
- (vi) **Label**: Any written, printed, marked, stamped, or graphic information attached to or displayed on the tyre;
- (vii) **Label Period**: The validity period of the RRC values under the energy labeling plan specified in this Schedule;
- (viii) **Permittee**: A person or agency authorized to affix labels under this Schedule;
- (ix) **Trader or Seller**: In relation to any labeled tyre, this refers to a person who sells or distributes such tyres. This includes traders, manufacturers, and permittees authorized to affix labels on the microwave oven;

4. ELIGIBILITY FOR PARTICIPATION

- (i) Products must comply with all the requirements outlined in the **CMVR Rule, 1989** and **AIS 142**, including any amendments and revisions, to participate in the Bureau of Energy Efficiency (BEE) labelling program;
- (ii) The tyre manufacturer or firm must possess a **BIS certification mark** or a **Quality System Certification** as per **ISO 9001** to be eligible for participation in the BEE labelling program;
- (iii) The tyres must meet all minimum performance requirements specified in **AIS 142**, including any amendments and revisions. Test reports will only be accepted from laboratories accredited by recognized accrediting agencies, such as **NABL** in India or other accreditation bodies that are signatories to **MRA with APAC** and/or **ILAC**, both in India and internationally.
- (iv) The following are the WGI limits for participation in the programme:

(A) Class C1 Tyres

Category of Use	WGI
Normal Tyre	≥ 1.1
Snow Tyre	≥ 1.1
Snow Tyre for use in severe snow conditions and with speed symbol "R" and above, including "H", indicating a maximum permissible speed greater than 160 km/h	≥ 1.0
Snow tyre for use in severe snow conditions" and with speed symbol "Q" or below, excluding "H", indicating a maximum permissible speed not greater than 160 km/h	≥ 0.9
Special Use	Exempted

(B) Class C2 and C3 Tyres

Category of Use	C2 Tyres		C3 Tyres	
Normal Tyres	≥ 0.95	≥ 0.85	≥ 0.80	≥ 0.65
Snow Tyres	≥ 0.95	≥ 0.85	≥ 0.65	≥ 0.65
Snow Tyres for Use in Severe Snow Conditions	≥ 0.85	≥ 0.85	≥ 0.65	≥ 0.65
Special Use Tyres	≥ 0.85	≥ 0.85	≥ 0.65	≥ 0.65

5. TESTING GUIDELINES

- (i) **Testing Procedure:** All tests specified in this schedule must be conducted following AIS 142 and its latest revisions;
- (ii) **Worst Case Criteria:** For applications involving a range of tyres from a family, the worst-case criteria shall be applied as outlined in Clauses 8.3 and 8.4 of AIS 142.

6. TEST REPORT

The test results shall be reported in the prescribed format in **Annexure – A** of this schedule.

7. STAR RATING PLAN

No tolerance is permitted for the upper limit of the Rolling Resistance Coefficient (RRC) value within the respective Star Rating Band. All tested products must satisfy the minimum threshold for each Star Rating Band. The manufacturer or permittee is accountable for considering manufacturing tolerances and other variations when determining the Star Rating for a specific tyre model.

Table “A”: Label Period Validity – 1st January 2022 to 30th June 2025

C1 (Rim Dia < 14”)		C1 (Rim Dia ≥ 14”)	
Star	RRC Limits	Star	RRC
1	$12.6 \leq \text{RRC} \leq 13.5$	1	$11.1 \leq \text{RRC} \leq 12.0$
2	$11.6 \leq \text{RRC} \leq 12.5$	2	$10.1 \leq \text{RRC} \leq 11.0$
3	$10.6 \leq \text{RRC} \leq 11.5$	3	$9.1 \leq \text{RRC} \leq 10.0$
4	$9.6 \leq \text{RRC} \leq 10.5$	4	$8.1 \leq \text{RRC} \leq 9.0$
5	$\text{RRC} \leq 9.5$	5	$\text{RRC} \leq 8.0$

C2 (Rim Dia ≤ 14”)		C2 (Rim Dia > 14”)	
Star	RRC Limits	Star	RRC Limits
1	$11.1 \leq \text{RRC} \leq 13.5$	1	$10.6 \leq \text{RRC} \leq 13.0$
2	$10.1 \leq \text{RRC} \leq 11.0$	2	$9.6 \leq \text{RRC} \leq 10.5$
3	$9.1 \leq \text{RRC} \leq 10.0$	3	$8.6 \leq \text{RRC} \leq 9.5$
4	$8.1 \leq \text{RRC} \leq 9.0$	4	$7.6 \leq \text{RRC} \leq 8.5$
5	$\text{RRC} \leq 8.0$	5	$\text{RRC} \leq 7.5$

C3	
Star	RRC Limits
1	$7.6 \leq \text{RRC} \leq 10.0$
2	$6.6 \leq \text{RRC} \leq 7.5$
3	$5.6 \leq \text{RRC} \leq 6.5$
4	$4.6 \leq \text{RRC} \leq 5.5$
5	$\text{RRC} \leq 4.5$

Table “B”: Label Period Validity – 1st July 2025 to 30th June 2026

C1 (Rim Dia < 14”)		C1 (Rim Dia ≥ 14”)	
Star	RRC Limits	Star	RRC
1	$12.1 \leq \text{RRC} \leq 13.0$	1	$11.1 \leq \text{RRC} \leq 12.0$
2	$11.1 \leq \text{RRC} \leq 12.0$	2	$10.1 \leq \text{RRC} \leq 11.0$
3	$10.1 \leq \text{RRC} \leq 11.0$	3	$9.1 \leq \text{RRC} \leq 10.0$
4	$9.1 \leq \text{RRC} \leq 10.0$	4	$8.1 \leq \text{RRC} \leq 9.0$
5	$\text{RRC} \leq 9.0$	5	$\text{RRC} \leq 8.0$

C2 (Rim Dia ≤ 14”)		C2 (Rim Dia > 14”)	
Star	RRC Limits	Star	RRC Limits
1	$10.6 \leq \text{RRC} \leq 13.0$	1	$10.1 \leq \text{RRC} \leq 12.5$
2	$9.6 \leq \text{RRC} \leq 10.5$	2	$9.1 \leq \text{RRC} \leq 10.0$
3	$8.6 \leq \text{RRC} \leq 9.5$	3	$8.1 \leq \text{RRC} \leq 9.0$
4	$7.6 \leq \text{RRC} \leq 8.5$	4	$7.1 \leq \text{RRC} \leq 8.0$
5	$\text{RRC} \leq 7.5$	5	$\text{RRC} \leq 7.0$

C3 (Radial Tyres)		C3 (Bias Tyres)	
Star	RRC Limits	Star	RRC Limits
1	$7.1 \leq \text{RRC} \leq 8.0$	1	$8.8 \leq \text{RRC} \leq 9.7$
2	$6.1 \leq \text{RRC} \leq 7.0$	2	$7.8 \leq \text{RRC} \leq 8.7$
3	$5.1 \leq \text{RRC} \leq 6.0$	3	$6.8 \leq \text{RRC} \leq 7.7$
4	$4.1 \leq \text{RRC} \leq 5.0$	4	$5.8 \leq \text{RRC} \leq 6.7$
5	$\text{RRC} \leq 4.0$	5	$\text{RRC} \leq 5.7$

8. BRAND & MODEL REGISTRATION

To participate in the Tyres Star Rating program and register models, manufacturers must submit the required documents to BEE as outlined in the S&L operational guidelines, DISHA (Disseminating Star Labeling in Household Appliances) manual.

9. FEES

- (i) **Brand Registration:** To get permission from the BEE, each brand must be registered separately and pay a label security fee of ₹1.00 Lac online. However, for small-scale industries, the fee is ₹25,000/-. The fee is refundable upon withdrawal of the brand, provided there are no outstanding dues;
- (ii) **Model Registration:** Every application of the permittee shall be accompanied by a non-refundable application fee of ₹2000/- per model, payable online;
- (iii) **Model Renewal:** If the Star rating table is revised, the permittee must submit a non-refundable application fee of ₹1000/-, payable online;
- (iv) **Labeling Fees:** The labeling fee for affixing a label on each unit of the registered tyre is ₹1/- (₹One only);
- (v) The permittee must submit the labeling fees through the online portal, within one month of the closure of the financial year supported by Chartered Accountant (CA) certified statement. If the label fee is not paid within the specified period, the BEE may impose a 10% per annum penalty on the accrued label fees. Additionally, if the full labeling fees are not recovered within one year of the submission deadline, the BEE may cancel all labels granted to the permittee;
- (vi) Failure to submit the requisite production data / labelling fees / CA-certified production statement by the stipulated deadline shall result in immediate portal suspension.
- (vii) Such non-compliance may attract penalty under Section 26 of the Energy Conservation Act, 2001 (“Act”) read with applicable regulations notified under the

10. CHECK TESTING

- (i) The BEE or its designated agency may, either suo-motu, or on a complaint received by it, carry out verification through an accredited laboratory to ensure that the registered model of the Tyre conforms to the star level and other particulars displayed on its label and that it complies with the other terms and conditions of permission;
- (ii) The detailed process of check testing is as follows:
 - (a) The sample will be randomly picked from the manufacturer's authorized dealer, retailer, or e-market platform for first check testing;
 - (b) If the sample drawn during the first check testing fails, the BEE or its designated agency will conduct a second check testing by purchasing twice the number of samples for the same model. The second check testing will only occur if the first set of samples fails;
 - (c) The permittee will be informed about the failure of the first check testing and will be advised to deposit/pay the costs for the samples, testing costs, and transportation for the second check testing in advance;
 - (d) If the permittee fails to deposit/pay the required expenses, the BEE will proceed with the verification through check testing but will halt any further processing of applications for new appliances or equipment from the respective permittee;
 - (e) The second set of samples will be randomly selected from the market for the second check testing;
 - (f) BEE or its designated agency will inform the permittee of the date for the second check testing, allowing them to witness the process. If the permittee is unable to attend, the Bureau will proceed with the testing in the presence of BEE or designated agency personnel, and the test results will be binding on the permittee;
 - (g) If either one or both samples of tyre collected for the second check testing fails, the Bureau or its designated agency shall:
 - (1) Direct the permittee, under intimation to all the State Designated Agencies, that the permittee shall, within two months, -
 - (i) Correct the star level displayed on the label of the tyre or remove the defects and deficiencies identified during testing;
 - (ii) Withdraw all stocks from the market to comply with the BEE's directives; and
 - (iii) Change the information displayed on advertising materials;
 - (2) Publish, for the benefit of consumers, the name of the permittee, brand name, model name or number, logo, and other specifications in any national or regional daily newspaper, through electronic means, or in any other manner deemed appropriate, within two months;
 - (h) The permittee shall within ten days of the conclusion of the period of two months referred to in Clause 10(g)(1):
 - (a) send the compliance report in the prescribed format (**Annexure - B**) to the BEE concerning action taken in compliance with the direction; and
 - (b) In case the compliance report referred to in Clause (a) is not received or

received without complying with any of the directions within the specified period, it shall be deemed non-compliance with the direction issued and orders to that effect shall be passed by the BEE.

- (i) If the permittee fails to comply with the directions issued by the BEE or its designated agency in Clause (g) (1) & (h) (a), the BEE, with notification to all other State Designated Agencies, shall:
 - (a) Withdraw the permission granted to the permittee;
 - (b) Notify the State Designated Agency to initiate further adjudication proceedings against the permittee under Section 27 of the Act.

11. LABEL DESIGN AND MANNER OF DISPLAY

(i) Label Content:

The content of the label shall include the following information:

- Rolling Resistance Coefficient (N/kN)
- Label Period
- Tyre Class (C1/C2/C3)
- Brand
- Manufacturing Year (YYYY)
- Tyre Size
- Pattern Name

(ii) Placement of label and QR Code

- To authenticate the star rating approval issued for each tyre model, BEE will provide manufacturers with a printable/readable version of a dedicated QR code along with the approval letter. It is recommended that the QR code be placed directly below or on either side of the star label affixed to each tyre unit. The QR code will contain the information specified in Clause 11.1 and any other details as BEE decides.
- Every tyre must display the label and QR code at the point of sale. The label shall be affixed to the side walls or thread.

(iii) Material, Dimension and Shape:

The label must be made of durable material and should adhere to the dimensions, design, and color scheme specified below:

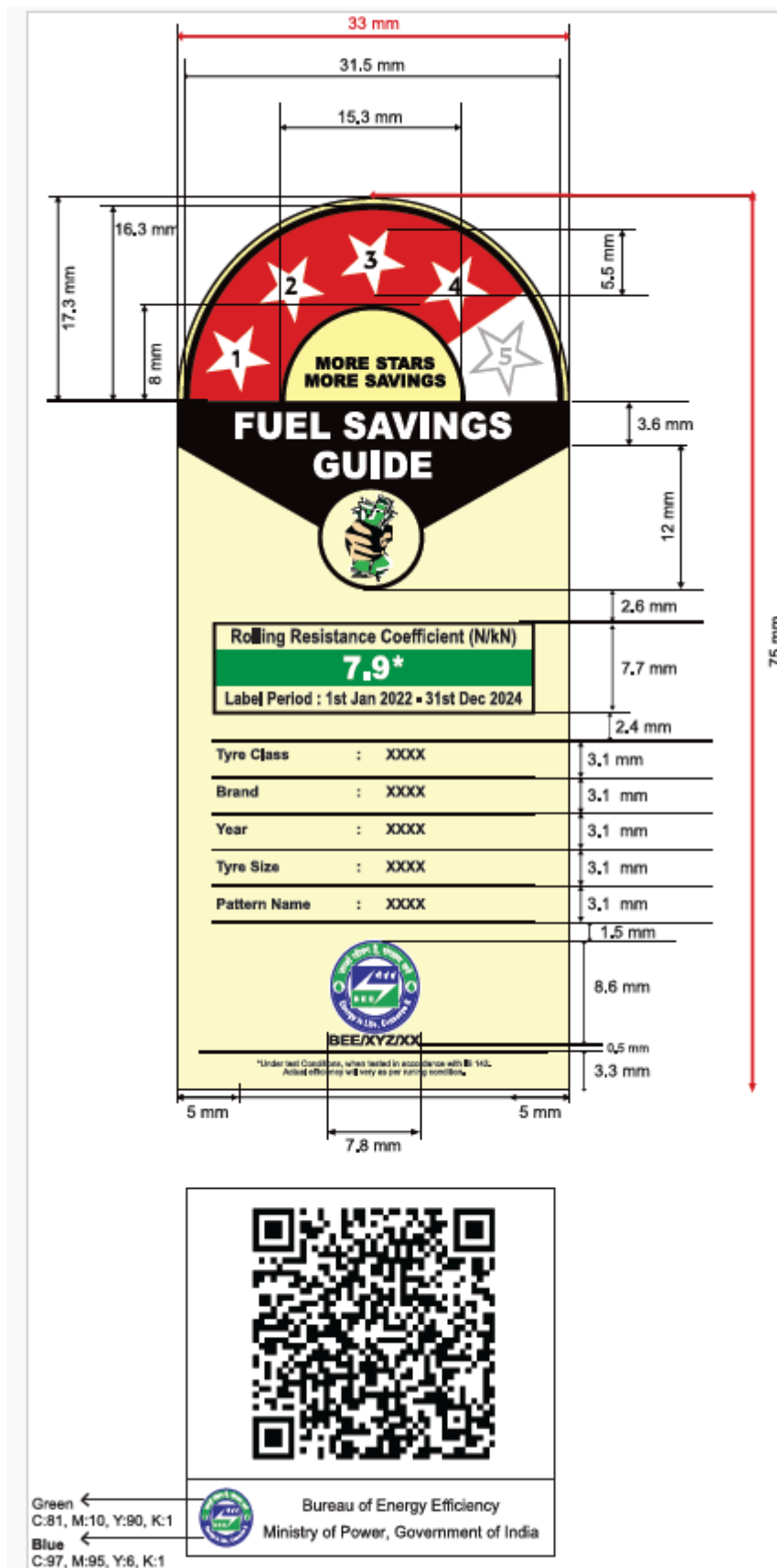


Figure 1: Dimension of the Label

(iv) **Color Scheme:**

The label shall be printed as per the color scheme given in Figure 2.

BLUE –

Hue (H)- 239° Saturation(S):64% Brightness (B):59% Luminance or lightness (L):28, chromatic components -a: 24 b: 54

Red(R):54 Green (G):55 Blue (B):151 Cyan(C):97% Magenta (M):95% Yellow(Y):6% Black (K):1% Web color code - #363797

GREEN –

Hue (H)-150° Saturation(S):10% Brightness (B):67% Luminance or lightness (L):61, chromatic components -a: 53 b: 32 Red(R):0 Green (G):170 Blue (B):87 Cyan(C):81% Magenta (M):10% Yellow(Y):90% Black (K):1% Web color code - #00AA56;

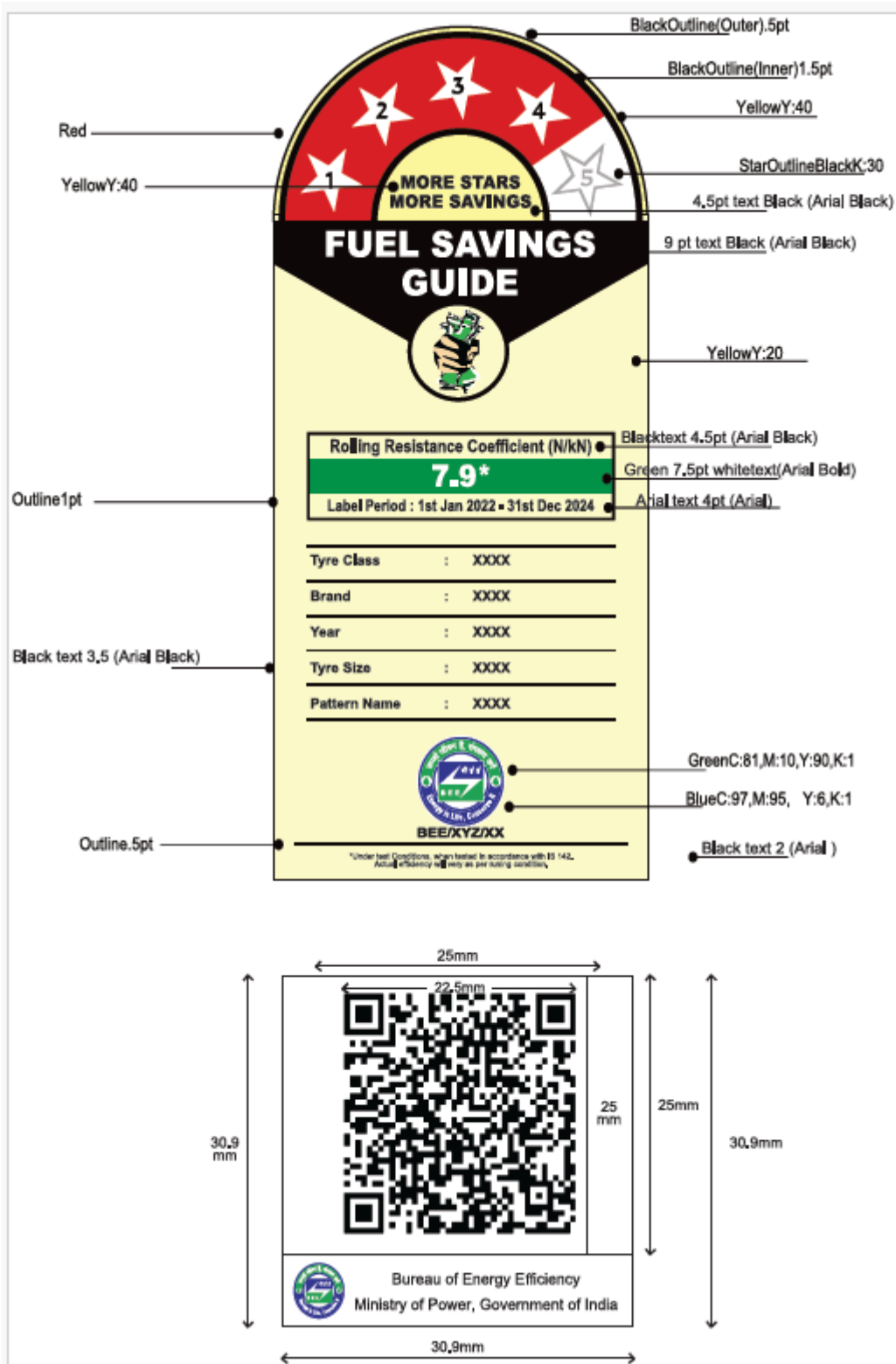
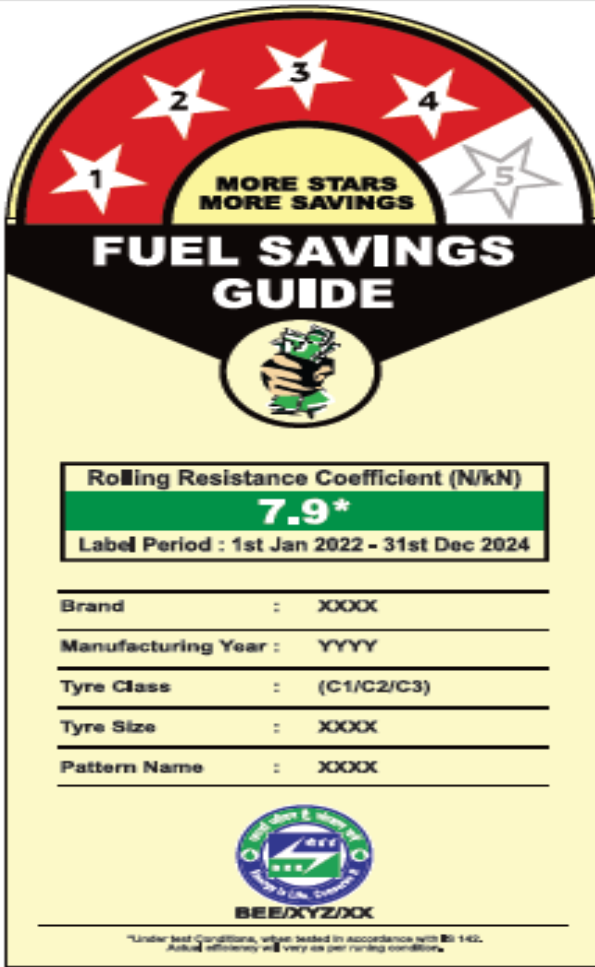


Figure 2: Color Scheme for the Label

(v) **Sample Label:**

An example of a star label to be affixed on the model is shown in Figure 3.



The label is a vertical rectangular sticker with a yellow background. At the top, there is a semi-circular graphic with a red border and a yellow center. Inside the red border are five white stars numbered 1 to 5. The yellow center contains the text "MORE STARS MORE SAVINGS". Below this graphic is a black banner with the text "FUEL SAVINGS GUIDE" in white. Underneath the banner is a circular logo showing a hand holding a green leaf. The main body of the label is yellow and contains a table with the following information:

Rolling Resistance Coefficient (N/kN)	
7.9*	
Label Period : 1st Jan 2022 - 31st Dec 2024	
Brand	: XXXX
Manufacturing Year	: YYYY
Tyre Class	: (C1/C2/C3)
Tyre Size	: XXXX
Pattern Name	: XXXX

Below the table is a circular logo with the text "BEE XYZ/XX" and "Bureau of Energy Efficiency". At the bottom of the label, there is a QR code and the text "Bureau of Energy Efficiency Ministry of Power, Government of India".

*Under test Conditions, when tested in accordance with BS 140.
Actual efficiency will vary as per running conditions.

Figure 3: Sample Label

Note: CDR File is available on BEE Website (www.beestarlabel.com)

ANNEXURE - A

TEST REPORT FORMAT FOR MANUFACTURERS LAB / INDEPENDENT LAB

1. General Information

Name of Manufacturer	
Name, address and contact details	

2. (a) Details of the Test Lab and Sample tested

Name of Testing Laboratory	
Address	
Date of Receipt of Sample	
Brand	
Manufacturing Month & Year of Tested Sample	
Tyre Class	
Tyre Size	
Pattern Name	
Test Method	AIS 142 (RRC / WGI)
Accreditation Number and Validity (DD/MM/YY)	
Test Report Number	
Test Month & Date	

S. No.	Test Parameter	Declared Value	Measured Value
1.	Wet Grip Index (WGI)		
2.	Rolling Resistance Coefficient (RRC)		
3.	BEE Star Rating		

Signature & Stamp of Authorized Signatory:

Name of Authorized Signatory:

Designation:

Place:

Date:

ANNEXURE - B

Action Taken Report on failure of check testing from Permittee to BEE

Action Taken Report

(To be furnished on Company's letterhead)

To,

Dated.....

THE SECRETARY,
BUREAU OF ENERGY EFFICIENCY
(MINISTRY OF POWER, GOVT. OF INDIA)
4TH FLOOR, SEWA BHAWAN,
SECTOR 1, R.K. PURAM,
NEW DELHI-110 066
INDIA.

Pursuant to the provisions of Schedule No. 30 of the Bureau of Energy Efficiency (BEE), we M/s....., the manufacturer of the tyre, were permitted to affix the label on the tyre conforming to the energy consumption standard of Star level vide BEE letter No.....dated.....for the model number.....

Pursuant to the provisions of the schedule for failure of the model in check testing, we were giving directions vide BEE letter number.....dated.....to take the necessary corrective action. In the light of the directive issued by the BEE, we hereby declare that the following actions have been taken at our end:

	Action Directed	Status	Action Taken
(i)	Correct the star level displayed on the label of the microwave oven to comply with the directions of the Bureau	Yes/No/NA	The star level has been corrected from star to.....star with effect from (Date)
(ii)	Withdraw all the stocks from the market to comply with the directions of the Bureau. and	Yes/No/NA	All the stocks from the market have been withdrawn to comply with the directions of the Bureau.
(iii)	Change the particulars displayed on advertising material.	Yes/No/NA	Yes/No/NA

The above declaration is true to the best of our knowledge and belief.

Signature:

Name:

Designation:

For and on behalf of:

Name of the Company/Firm, etc.:

Seal of the Firm/Company: