



No. RW/NH-33044/24/2015-S&R(R)  
GOVERNMENT OF INDIA  
MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
(S&R(P&B) Section)  
Transport Bhawan, 01, Parliament Street, New Delhi-110 001

Dated: 26<sup>th</sup> November, 2019

To,

1. The Chief Secretaries of all the State Governments/ UTs
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
3. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs dealing with National Highways, other centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi- 110 010.
5. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
6. The Managing Director, NHIDCL, PTI Building, New Delhi-110001
7. All CE-ROs, ROs and ELOs of the Ministry

**Subject:- Use of waste Plastic in Hot Bituminous Mixes in wearing courses (dry process) for construction of National Highways.**

- Ref. (i) Ministry's Letter/Circular No.RW/NH-33044/24/2015-S&R(R) dated 9<sup>th</sup> November, 2015.
- (ii) Ministry's Letter/Circular No.RW/NH-33044/24/2015-S&R(R) dated 27<sup>th</sup> December, 2016.
- (iii) Ministry's Letter No.RW/NH-33044/24/2015-S&R(R) dated 27<sup>th</sup> August, 2019.

Please refer to the guidelines/instructions issued vide Ministry's above cited references regarding use of waste plastic for construction of National Highways.

2. The detailed guidelines for the use of waste plastic in Hot Bituminous Mixes (dry process) in wearing courses of National Highways have been stipulated in Indian Road Congress Publication namely IRC SP:98-2013 "*Guidelines for the use of Waste Plastic in Hot Bituminous Mixes (Dry Process) in Wearing Courses*". Following are reiterated for compliance:-

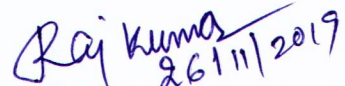
- (a) Heating of plastic waste beyond 180 degree Celsius may thermally degrade the plastic and may lead emission of harmful gases. As such, maintenance of

  
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appropriate temperature is quite essential for successful implementation of use of waste plastic for Highways construction.

- (b) Use of waste plastic should be 6-8 percent by weight of bitumen. However, addition of waste plastic should not be considered as replacement of bitumen by same percentage from the bituminous mix of wearing course.
  - (c) The bituminous mix using waste plastic shall be designed as per MoRTH Specifications requirement and based on such design formulation, the percentage of bitumen and waste plastic shall be used. No variation (either positive or negative) in cost shall be applicable on account of addition of plastic and/or reduction/addition in bitumen.
  - (d) All the required tests and frequencies as per MoRTH Specifications shall be conducted.
3. The contents of this Circular may please be brought to the notice of all the Concerned in your Organization.
  4. This Circular issues with the approval of Competent Authority.

Yours faithfully,

  
(Raj Kumar)

Assistant Executive Engineer - S&R (P&B)  
For Director General (Road Development) & SS

**Copy to:**

1. All CEs in the Ministry of Road Transport & Highways
2. The Secretary General, Indian Roads Congress
3. Technical circular file of S&R (R) Section
4. NIC-for uploading on Ministry's website under "What's new"