

Govt issues new guidelines to make Indian highways safer; temperature and traffic-resistant material use mandated

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New guidelines on road construction will specify use of surfacing material based on both traffic and pavement temperature.



The revised rules would alter the specifications on use of bituminous binders for highways. (AP)

New Delhi: Pavements and roads that crack and turn sticky in the summer heat could become a thing of the past.

New guidelines on road builds will specify use of surfacing materials based on both traffic and pavement temperature, two persons aware of the development said, in a move to make Indian highways smoother and safer.

According to them, the new guidelines for highways and expressways – issued by the ministry of road transport and highways -- specifies that all new road projects will use surfacing material decided on the basis of temperature and axle load (traffic weight) variations and not just weight-carrying capacity as is the case now.

“The changes would alter the specifications on use of bituminous binders for highways and different grades of binders will now be specified on the basis of prevailing loading, ambient temperature, rainfall, snowfall and speed. This would mark pavement durable and make highways safer to drive with fewer or no stretches having any breakages or potholes,” said one of the two persons quoted above.

Load-based binders

Bituminous binders, also known as asphalt binders or bitumen, are essential components in the construction of roads and pavements. They serve as the glue that holds together the stone, sand or gravel in asphalt mixtures, creating a durable and flexible surface.

Climate factored in

Specifications have also been provided by MoRTH for different mixes being used for a certain level of traffic load and for different climatic zone considering ambient temperature, rainfall, snowfall, traffic loading intensity etc., across India.

The new guidelines have been framed on the basis of suggestions given by a task force constituted by MoRTH to specifically recommend the appropriate type and grade of bitumen or modified bitumen for different climatic zone.

The new guidelines would be applicable for all new projects for which bids are to be invited now. The quality of highways would also be checked during re-laying of existing highways, said the person quoted earlier.

Queries sent to MoRTH remained unanswered till press time.

Evolving needs

“There is a noticeable shift towards constructing wider roads from 4 lanes to 6 lanes or 8 lanes, reflecting evolving transportation needs and the push for smoother traffic flow and safety. The government is not only focusing on new road construction, it is also working on expressways, dedicated elevated corridors and grade elevators through which the time of travel is reduced.

It drastically reduces the entire cost of the supply chain related to transportation. This transition may require more sophisticated planning and execution,” said [Daleep Thusu, Sr. VP & Transportation Expert - Rudrabhishek Enterprises Ltd.](#)

The planning to ensure quality of construction of highways and expressways in the country is aimed at providing durable pavements for all climatic conditions which can withstand heavy traffic volume without breaking. Use of appraise pavement material is also expected to improve the life of expressways and substantially reduce expenditure on operation and maintenance work.

The government proposes to award 10,000-12,000 km of highways in FY25. All these highways would now need to be built using the specifications contained in the bitumen circular.