

GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM AND NATURAL GAS
RAJYA SABHA
UNSTARRED QUESTION NO-139
ANSWERED ON - 01/12/2025

PERFORMANCE AND FIELD-LEVEL EFFECTS OF E20 FUEL

139. SMT. MAUSAM B NOOR:

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) whether Government has received reports of corrosion, mileage reduction or emission anomalies in vehicles using E20 fuel;
- (b) whether vehicle manufacturers have expressed concerns regarding warranty implications;
- (c) whether Government proposes to introduce a consumer compensation or grievance framework; and
- (d) the steps being taken to verify and address field-level performance issues, details thereof?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF PETROLEUM & NATURAL GAS

(SHRI SURESH GOPI)

(a) to (d): Government and OMCs have noticed certain media reports/social media postings and concerns relating to the use of E20 fuel. The Inter-Ministerial Committee (IMC) constituted on 26.12.2020 under NITI Aayog had, inter-alia, examined various aspects of vehicle compatibility and mileage. This assessment was also supported by research studies conducted by Indian Oil Corporation Limited (IOCL), the Automotive Research Association of India (ARAI), and the Society of Indian Automobile Manufacturers (SIAM). Extensive field trials on vehicles with E20 fuel did not indicate any compatibility issue or any negative effect of E20. These studies have confirmed that even legacy vehicles do not exhibit any significant variations in performance, nor do they show abnormal wear-and-tear when operated with E20 parameters such as drivability, startability, metal compatibility, and plastic compatibility. Only in case of certain older vehicles, some rubber parts and gaskets may require replacement earlier than in case non blended fuel was used. This replacement is inexpensive and can be easily managed during routine servicing. It may need to be done once in the life time of the vehicle and is a simple process to be carried out at any authorized workshop.

With regard to the concern of vehicle mileage due to the use of E20 fuel, Press Release dated 12.08.2025 issued by the Government and a Joint Press Release dated 30.08.2025 issued by the Society of Indian Automobile Manufacturers, the Automotive Research Association of India, and the Federation of Indian Petroleum Industry (ARAI-FIPI-SIAM) have clarified that vehicle mileage is influenced by a variety of factors beyond just fuel type. These include driving habits, maintenance practices such as oil changes and air filter cleanliness, tyre pressure and alignment, and even air conditioning load. The efficiency drop (if any) in E 10 vehicles has been marginal. For some manufacturers, vehicles have been E 20 compatible from as far back as 2009.

As per the Joint Statement dated 30.08.2025 released by ARAI, FIPI and SIAM, the use of E20 fuel gives better acceleration, better ride quality and most importantly, lowers carbon emissions by approximately 30% as compared to E10 fuel. Ethanol's higher-octane number makes ethanol-blended fuels a valuable alternative for higher-octane requirements that is crucial for modern high-compression engines. Vehicles tuned for E20 deliver better acceleration which is a very important factor in city driving conditions. Additionally, ethanol's higher heat of vaporization reduces intake manifold temperatures, increasing air-fuel mixture density and boosting volumetric efficiency.
