Usage Certificate

Certificate ID	**a486deb0738995b0d8526a0b01e03e0d**
Date of certification	**2025-02-28**

Scan QR code for
Digital Usage Certificate

Vehicle Info

Manufacturer	**OEM1**
Model	**EV1**
Model year	**2024**
Vehicle mileage	**26,271 km**
Vehicle identifiation number (VIN)	**XXXXXXXX*** **

Battery Info

Cathode material category	**NMC**
Usable energy content (current / beginning of life)	**71 kWh / 72 kWh**
Range WLTP (current / beginning of life)	**503 km / 507 km**

State of Health

Current State of Health

99.1%

Predicted State of Health[1]

(forecast for 12 months)

97.3%

Aging Condition Rating

excellent condition

[1] Prediction is based on a driven mileage of 2,727 km. Further data is required to achieve a higher accuracy.

Parameter Terminology

Certificate Parameter Terminology

Certificate ID
A unique identification number assigned to this certificate for tracking and verification purposes.
Date of Certification
The official date on which this certificate was issued.

Vehicle Parameter Terminology

Manufacturer
The name of the automotive company that produced the vehicle in which this battery is installed.
Model
The specific make and model of the vehicle that houses this battery, as designated by the manufacturer.
Model Year
The official release year of the vehicle model equipped with this battery, as determined by the manufacturer.
Vehicle Mileage
The total distance the vehicle has traveled, as recorded by its odometer at the time of certification.
Vehicle Identification Number (VIN)
A unique alphanumeric code assigned to the vehicle, serving as its distinct identifier for registration, tracking, and verification purposes.

Battery Parameter Terminology

Cathode Material
The abbreviated designation of the battery's cathode material type. The cathode material refers to the active material used in the positive electrode of the battery, which plays a crucial role in determining the battery's performance, energy density, lifespan, and safety characteristics.
Common cathode materials used in electric vehicle (EV) batteries include:
NMC (Nickel Manganese Cobalt Oxide) – A widely used material that balances energy density, power, and longevity.
LFP (Lithium Iron Phosphate) – Known for its enhanced thermal stability, long cycle life, and safety, but with a lower energy density.
Energy Content (Beginning of Life / Current)
Represents the amount of energy stored in a fully charged battery both at the beginning of its life (new condition) and in its current state.
Range WLTP (Beginning of Life / Current)
The estimated driving distance achievable with a fully charged battery when new, based on the Worldwide Harmonized Light Vehicle Test Procedure (WLTP) and the manufacturer's specifications. The current range reflects the battery's performance in its present condition.
State of Health (SoH)
A measure of the battery's current capacity compared to its original (new) capacity. A higher SoH value indicates a greater remaining battery capacity, typically resulting in a longer driving range.
Predicted State of Health
A forecasted SoH value for a specified future period, estimated using Bosch's advanced battery aging prediction algorithms.
Aging Condition Categorization
The battery's aging condition is assessed by comparing its SoH to the distribution of similar vehicles with comparable mileage in the customer fleet. The condition is categorized into five levels: "bad condition", "below average condition", "average condition", "good condition", and "excellent condition".