

नेपाल सवारी प्रदुषण मापदण्ड २०५६  
(ग्याँसबाट चालित सवारीसाधनहरुका लागि)

**(Nepal Vehicle Mass Emission Standard, 2056)**  
(For Gas Operated Vehicles)

**A. Vehicles Fueled with Liquefied Petroleum Gas (LPG) or Natural Gas (NG)**

**1. For Passenger Cars with Up To Six Seats and Gross Vehicle Weight (GVW) less than 2.5 tons**

**Type 1 Test** - verifying exhaust emissions after a cold start.

	<i>grams per kilometer</i>	
	Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NOx)
Type Approval*	2.72	0.97
Conformity of Production**	3.16	1.13

*Note:*

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- *Vehicles that are fueled with LPG or NG shall be tested in this type I test for variations in the composition of LPG or NG as set out in the testing procedures approved in the vehicle manufacturing countries.*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for type I test as vehicles that can only run on a gaseous fuel.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

The crankcase ventilation system must not permit the emission of any of the crankcase gases into the atmosphere.

**Type IV Test** - determination of evaporative emission

*Not applicable*

**Type V Test** - durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.*

Deterioration factors	
CO	HC+ NO <sub>x</sub>
1.2	1.2

**2. For Light-Duty Commercial Vehicles with Gross Vehicle Weight (GVW) Less than or equal to 3.5 tons**

**Type 1 Test** - verifying exhaust emissions after a cold start.

Reference Mass (kg)		grams per kilometer	
		Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NO <sub>x</sub> )
RM < 1250	Type Approval	2.72	0.97
	Conformity of production	3.16	1.13
1250 < RM < 1700	Type Approval	5.17	1.4
	Conformity of production	6.0	1.6
RM > 1700	Type Approval	6.9	1.7
	Conformity of Production	8.0	2.0

*Note:*

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- *Reference mass means the "unladen mass" (mass of the vehicle in running order without crew, passengers or load, but with the fuel tank full and the usual set of tools and spare wheel on board, when applicable) of the vehicle increased by a uniform figure of 100 kg.*
- *Includes passenger vehicles with seating capacity more than six persons or reference mass more than 2,500 kg.*
- *Vehicles that are fueled with LPG or NG shall be tested in this type I test for variations in the composition of LPG or NG as set out in the testing procedures approved in the vehicle manufacturing countries.*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for type I test as vehicles that can only run on a gaseous fuel*

**Type II Test** - carbon monoxide emission at idling speed.

Not applicable

**Type III Test** - verifying emissions of crankcase gases.

*The crankcase ventilation system must not permit the emission of any of the crankcase gases into the atmosphere.*

**Type IV Test** - determination of evaporative emission.

*Not applicable*

**Type V Test** -durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.*

<b>Deterioration factors</b>	
CO	HC+ NOx
1.2	1.2

### 3. For Three Wheelers

**Type I Test** - verifying exhaust emissions after a cold start.

	<i>grams per kilometer</i>	
	Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NOx)
Type Approval*	4.0	2.0
Conformity of Production**	4.8	2.4

*Note:*

- The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- Vehicles that are fueled with LPG or NG shall be tested in this type I test for variations in the composition of LPG or NG as set out in the testing procedures approved in the vehicle manufacturing countries.*
- Vehicles that can be fuelled with both petrol and a gaseous fuel, but where petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 liters of petrol will be regarded for type I test as vehicles that can only run on a gaseous fuel.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

*The crankcase ventilation system must not permit the emission of any of the crankcase gases into the atmosphere.*

**Type IV Test** - determination of evaporative emission

*Not applicable*

**Type V Test** - durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.*

<b>Deterioration factors</b>	
CO	HC+ NO <sub>x</sub>
1.2	1.2

#### **4. For Two Wheelers**

**Type I Test** - verifying exhaust emissions after a cold start.

	<i>grams per kilometer</i>	
	Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NO <sub>x</sub> )
Type Approval*	2.0	2.0
Conformity of Production**	2.4	2.4

*Note:*

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- *Vehicles that are fueled with LPG or NG shall be tested in this type I test for variations in the composition of LPG or NG as set out in the testing procedures approved in the vehicle manufacturing countries.*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 2 litres of petrol will be regarded for type I test as vehicles that can only run on a gaseous fuel.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

*Not applicable*

**Type IV Test** - determination of evaporative emission

*Not applicable*

**Type V Test** - durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table*

<b>Deterioration factors</b>	
CO	HC+ NO <sub>x</sub>
1.2	1.2

**Note:**

- *only applicable if fitted with anti pollution devices*

## **B. Vehicles Fueled with unleaded petrol or with either unleaded petrol and LPG or NG**

### **1. For Passenger Cars with Up To Six Seats and Gross Vehicle Weight (GVW) less than 2.5 tons**

**Type 1 Test** - verifying exhaust emissions after a cold start.

	<i>grams per kilometer</i>	
	Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NO <sub>x</sub> )
Type Approval*	2.72	0.97
Conformity of Production**	3.16	1.13

**Note:**

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- *Vehicles which can be fueled with either unleaded petrol or LPG or NG should be tested in this type I test on both fuels, of which the fuelling on LPG or NG has to be performed for variation in the composition of LPG or NG as set out in the testing procedure approved in the vehicle manufacturing country.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

*The crankcase ventilation system must not permit the emission of any of the crankcase gases into the atmosphere.*

Note:

- *Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this type test on unleaded petrol only*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.*

**Type IV Test** - determination of evaporative emission

*Evaporative emissions shall be less than 2 g/test*

Note:

- *Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this type test on unleaded petrol only*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.*

**Type V Test** - durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.*

<b>Deterioration factors</b>	
CO	HC+ NO <sub>x</sub>
1.2	1.2

Note:

- *Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this test on unleaded petrol only.*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.*

**2. For Light-Duty Commercial Vehicles and Vehicles with Gross Vehicle Weight (GVW) Less than or equal to 3.5 tons**

**Type 1 Test** - verifying exhaust emissions after a cold start.

Reference Mass (kg)		grams per kilometer	
		Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NO <sub>x</sub> )
RM < 1250	Type Approval	2.72	0.97
	Conformity of production	3.16	1.13
1250 < RM < 1700	Type Approval	5.17	1.4
	Conformity of production	6.0	1.6
RM > 1700	Type Approval	6.9	1.7
	Conformity of Production	8.0	2.0

*Note:*

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- *Reference mass means the "unladen mass" (mass of the vehicle in running order without crew, passengers or load, but with the fuel tank full and the usual set of tools and spare wheel on board, when applicable) of the vehicle increased by a uniform figure of 100 kg.*
- *Includes passenger vehicles with seating capacity more than six persons or reference mass more than 2,500 kg.*
- *Vehicles which can be fueled with either unleaded petrol or LPG or NG should be tested in this type I test on both fuels, of which the fuelling on LPG or NG has to be performed for variation in the composition of LPG or NG as set out in the testing procedure approved in the vehicle manufacturing country.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

*The crankcase ventilation system must not permit the emission of any of the crankcase gases into the atmosphere.*

*Note:*

- *Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this type test on unleaded petrol only*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel. (i.e. not applicable)*

**Type IV Test** - determination of evaporative emission

*Evaporative emissions shall be less than 2 g/test*

*Note:*

- *Vehicles which can be fueled either with unleaded petrol or LPG or NG shall be tested in this type test on unleaded petrol only*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.*

**Type V Test** - durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.*

<b>Deterioration factors</b>	
CO	HC+ NOx
1.2	1.2

**Note:**

- *Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this test on unleaded petrol only.*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.*

### **3.0 For Three Wheelers**

**Type I Test** - verifying exhaust emissions after a cold start.

	<i>grams per kilometer</i>	
	Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NOx)
Type Approval*	4.0	2.0
Conformity of Production**	4.8	2.4

*Note:*

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on chassis Dynamometer.*
- *Vehicles which can be fueled with either unleaded petrol or LPG or NG should be tested in this type I test on both fuels, of which the fuelling on LPG or NG has to be performed for variation in the composition of LPG or NG as set out in the testing procedure approved in the vehicle manufacturing country.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

The crankcase ventilation system must not permit the emission of any of the crankcase gases into the atmosphere.

Note:

- Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this type test on unleaded petrol only
- Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 5 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.

**Type IV Test** - determination of evaporative emission

Evaporative emissions shall be less than 2 g/test

Note:

- Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this type test on unleaded petrol only
- Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.

**Type V Test** - durability of pollution control devices.

The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.

Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.

Deterioration factors	
CO	HC+ NO <sub>x</sub>
1.2	1.2

Note:

- Vehicles, which can be, fueled either with unleaded petrol or LPG or NG should be tested in this test on unleaded petrol only.
- Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 5 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.

## 4. For Two Wheelers

**Type I Test** - verifying exhaust emissions after a cold start.

	grams per kilometer
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	Carbon monoxide (CO)	hydrocarbons plus oxides of nitrogen (HC + NO <sub>x</sub> )
Type Approval*	2.0	2.0
Conformity of Production**	2.4	2.4

Note:

- *The test shall be as per the Driving Cycle adopted by different countries, with cold start on Chassis Dynamometer.*
- *Vehicles which can be fueled with either unleaded petrol or LPG or NG should be tested in this type I test on both fuels, of which the fuelling on LPG or NG has to be performed for variation in the composition of LPG or NG as set out in the testing procedure approved in the vehicle manufacturing country.*

**Type II Test** - carbon monoxide emission at idling speed.

*Not applicable*

**Type III Test** - verifying emissions of crankcase gases.

*Not applicable*

**Type IV Test** - determination of evaporative emission

*Not applicable*

**Type V Test** - durability of pollution control devices.

*The test represents an endurance test of 80,000 kilometer driven on the road or on a chassis dynamometer.*

*Notwithstanding the above requirements, a manufacturer may choose to use the deterioration factors from the following table.*

<b>Deterioration factors</b>	
CO	HC+ NO <sub>x</sub>
1.2	1.2

Note:

- *Only applicable if fitted with anti pollution devices.*
- *Vehicles which can be fueled either with unleaded petrol or LPG or NG should be tested in this test on unleaded petrol only.*
- *Vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 2 litres of petrol will be regarded for this test as vehicles that can only run on a gaseous fuel.*