

4. Three-way Catalyst

- The basic material of three-way catalyst is platinum (Pt), rhodium (Rh) and palladium (Pd), and a thin coat of their mixture is applied onto honeycomb or porous ceramics of an oval shape (carrier). To avoid damaging the catalyst, only unleaded gasoline should be used.
- The catalyst is used to reduce HC, CO and NO_x in exhaust gases, and permits simultaneous oxidation and reduction. To obtain an excellent purification efficiency on all components HC, CO and NO_x, a balance should be kept among the concentrations of the components. These concentrations vary with the air-fuel ratio.
- The air-fuel ratio needs to be controlled to a value within the very narrow range covering around the stoichiometric mixture ratio to purify the components efficiently.