Evaluation of Aerodynamic Performance with SC/Tetra

Effect of design change on aerodynamic characteristics of a car

Rear Fender Shape – Analysis Cases –

Type 1

Type 2

Type 3

Pressure Distribution on the Body Surface

Red…Indicates large negative pressure

Type 1

Type 2

Type 3

Comparison of Cd Values

Type 2 < Type 3 < Type 1  Low resistance  Good gasmileage

Cd (drag coefficient) value:
Air resistance coefficient against a moving car
Smaller Cd can be obtained when there are fewer factors that disturb air flow.

Comparison of Down Force at rear part

Type 1 > Type 2 > Type 3

Comparison among the 3 types  "Type2" is the best

Notes

Flow phenomena, which are difficult to be captured in experiments, can be evaluated in detail with numerical simulation and visualization.