KOBELCO

Aluminum/Steel Multi-Material Door

Benefits

- Reduction of side door costs and weight reduction costs (Weight reduction cost: less than 500 yen/kg, 60% reduction compared to aluminum doors)
- Weight reduction effect compared to steel sheet doors: approx. 7 kg/door (weight reduction rate: approx. 40%)

Point

Prototype Model

Low-cost multi-material (MM) door realized by using a thinner aluminum inner and a steel sash frame

A multi-material door was achieved at a lower cost by using a thinner aluminum inner and a steel sash frame

Aluminum/Steel MM Lightweight **Door Component Composition**

Frame Outer RR

デントR/F

Door Beam BRKT RR

nge Retainer LWR

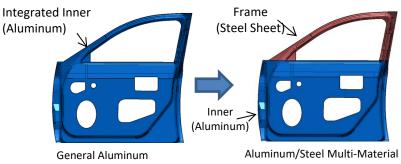
Hinge R/F LWR Inner, t=0.8mm

Frame Inner RR Beltline Inner R/F Hinge R/F UPR Hinge Retainer UPR Frame Inner FR

Frame Outer FR

Outer

: Aluminum



Integrated Inner Thickness: $1.2 \sim 1.6$ mm Yield: approx. 50%

Door Inner

Thickness: 0.8mm Yield: approx. 70% Aluminum/Steel MM Lightweight



(Outer Side)



(Inner Side)

KOBE STEEL, LTD.

TECHNICAL DEVELOPMENT GROUP

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