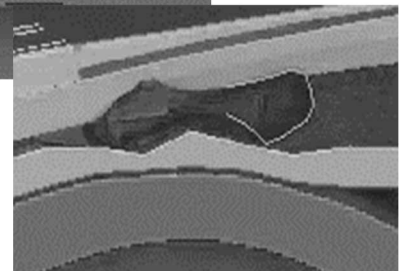
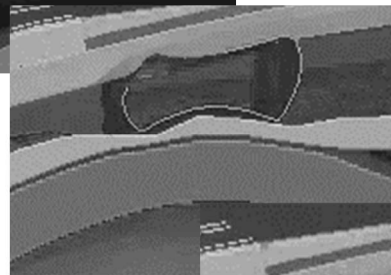
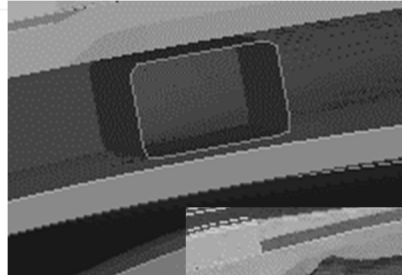


O-FLEX -E nergy A bsorption



—Impact energy absorbing parts—

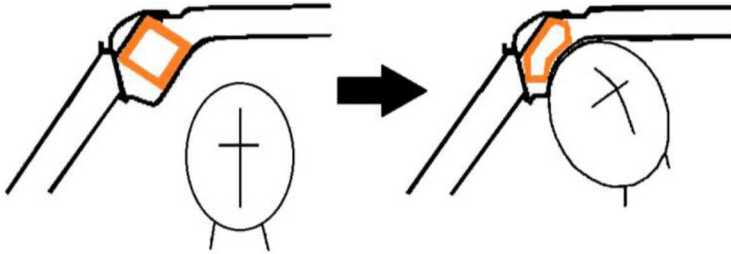


The savior of
impact energy
absorption!

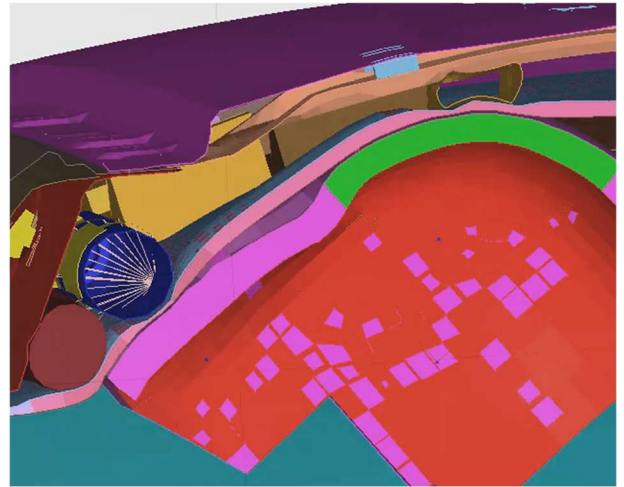
OHTSUKA

What is O-EA TUBE ?

O-EA TUBE is an important safety component that absorbs the impact of an unexpected collision and protects occupants.



The O-EA TUBE installed in the interior material absorbs collision energy and protects the head.



[Head impact protection example]

◆Application : Impact energy absorbing

• Automobile cabins (passenger protection)

- Front header rail
- Sunroof surroundings
- Side roof
- Rear header rail
- Various pillars
- Door surroundings
- Knee area (under the handle)



[Installation example]

• Front area of automobile (pedestrian protection)

- Bumper
- Automobile hood

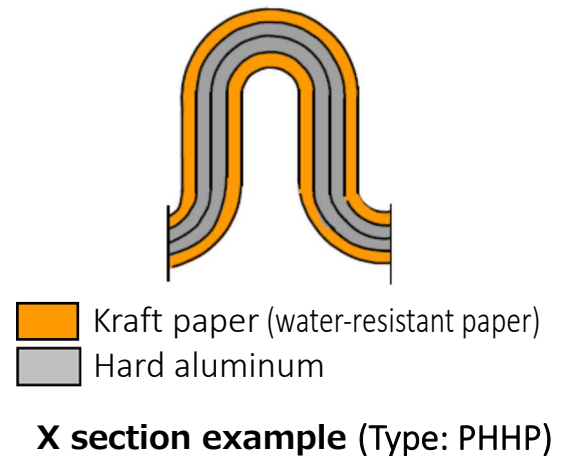
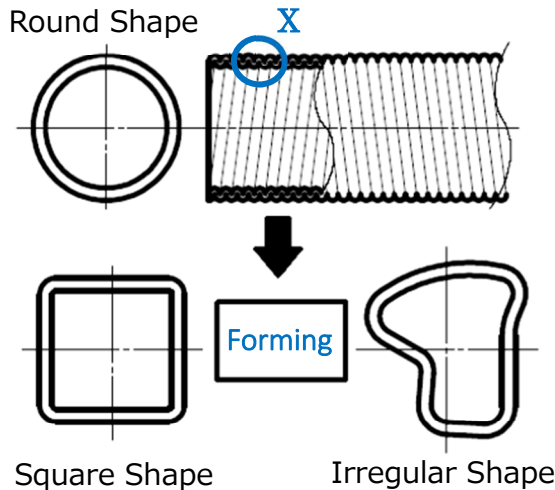
etc.

- ★ O-EA TUBE has been widely used to protect the head, shoulders, legs, etc.
- ★ Compliant with US FMVSS 201(Upper Interior Head Impact).
- ★ It can also be used to protect occupants from side collisions and to protect the legs of pedestrians.
- ★ Curtain airbags and side airbags alone cannot protect occupants if the electronic control system fails during a collision, but O-EA TUBE can !

Configurations

◆ Multi-layer corrugated tube and forming products

As long as the perimeter is the same, it can accommodate triangles, squares, rectangles, irregular shapes.



◆ Materials and product variations

- Materials: P(Kraft paper) and H(Hard aluminum 80μm~100μm) combination
- Type: Choose from nine types PHP(80)~PHHHP(100)
- Adjustment of impact energy absorption performance:
 - Changes to hard aluminum thickness and number of layers (up to 3 layers)
 - Changes to corrugation pitch

Low rigidity

PHP(80 < 90 < 100)

Hard aluminum single layer

< PHHP(80 < 90 < 100)

Hard aluminum double layers

<

High rigidity

PHHHP(80 < 90 < 100)

Hard aluminum triple layers

The rigidity can be changed while keeping the same shape !



The square shape is ideal for absorbing energy.



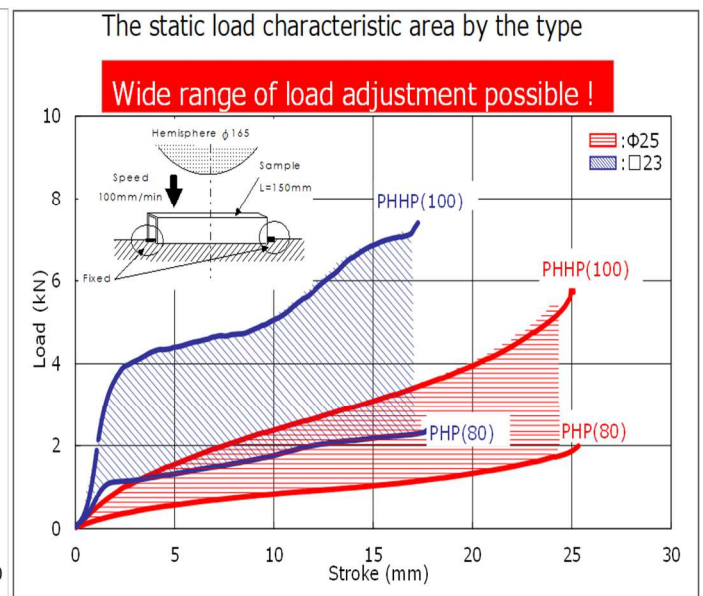
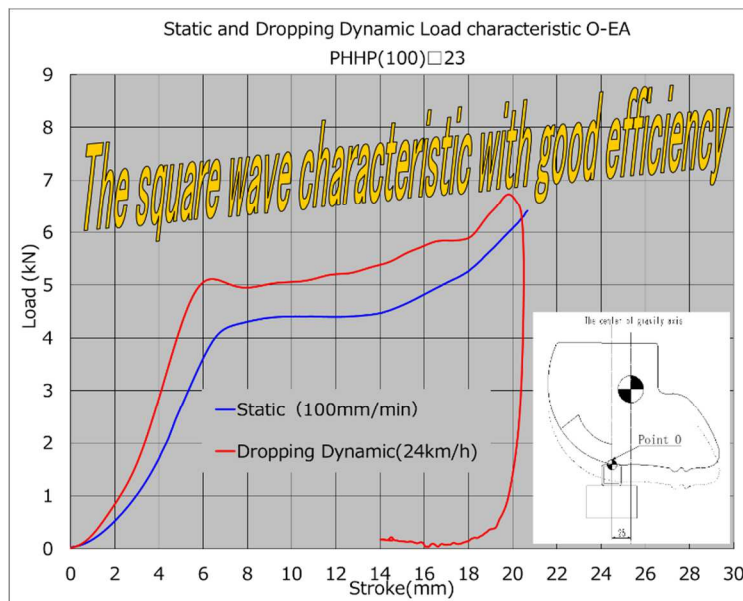
Added non-woven fabric or PAD (for vibration and sound insulation)



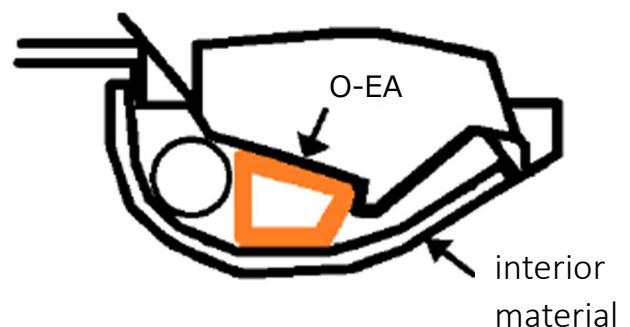
Added notches and cutouts

Advantages of O-EA TUBE

- Reliability based on years of proven use.
- Ideal energy characteristics (rectangular waveform) enable high efficiency even in small spaces.
- The rigidity can be changed while keeping the same shape.
By fine-tuning the amount of energy absorbed, you can choose the type that best suits your needs.



- We can also manufacture irregular shapes to fit the automobile body space.
- The lead time for providing prototypes is short.
Mold costs are lower than for resin molded products.



※ **Contact us for more information.**



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