Evaluation of Press-Fit Load, Assembly, and Closure Compression Feel

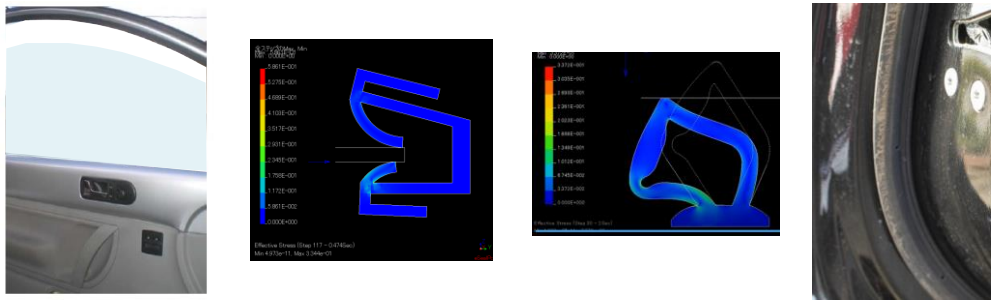
- Overview -

eSeal make it possible to evaluate the assembly by representing complex movements of assembling.
It can also analyze under the conditions where self-contact can occur, and predict sealing performance based on compression feel, closure feel, and contact pressure.

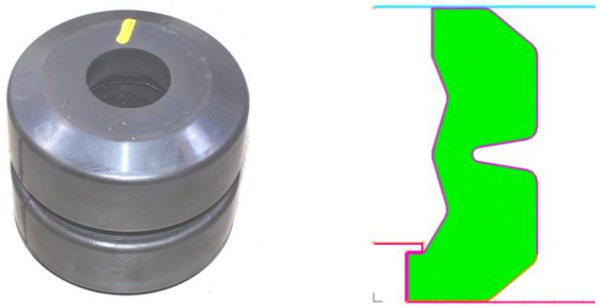
- Examples of use -

eSeal can simulate complex movements during assembly operations and perform analysis of rubber seal fitting into grooves.
You can evaluate the assembly of weather strips and glass runs by human hand and consider the shape design that meets your needs.
The analysis solver has strength on large deformation and contact and can analyze crushing even when self-contact occurs.
It can also be used for large compressions, such as in rubber springs.

Weather strips and Glass runs



rubber springs



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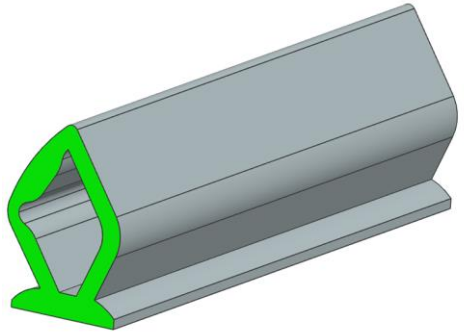
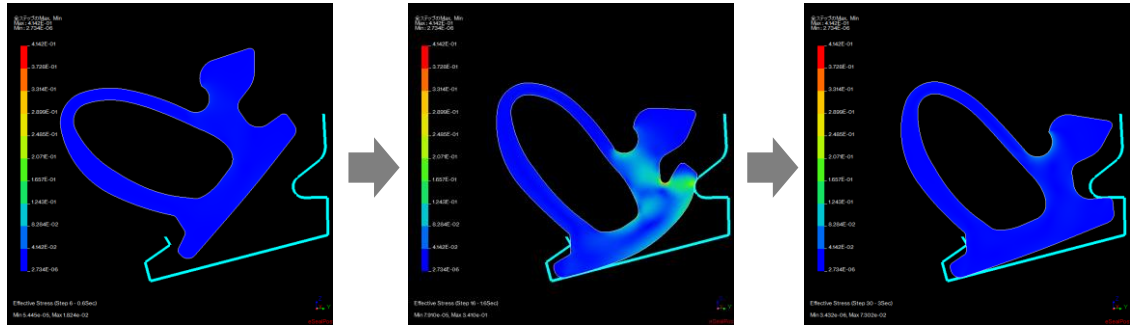
- Weatherstrip compression -

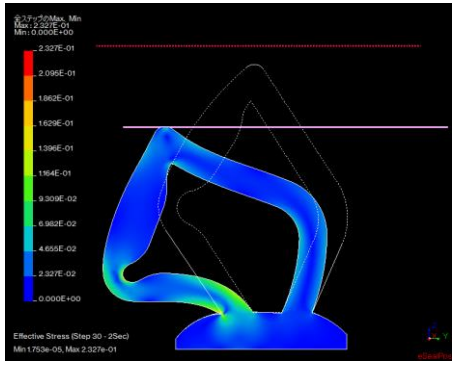


- **Predict seal performance**
  - Predict seal performance based on the compression feel, closure feel, and contact pressure.

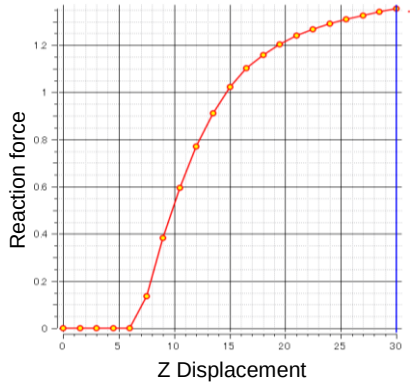
- **Analysis of assembly processes**
  - Express the assembly process by picking a specific part of the seal and moving it.
  - Predict the possibility of assembly of particular shape and design.



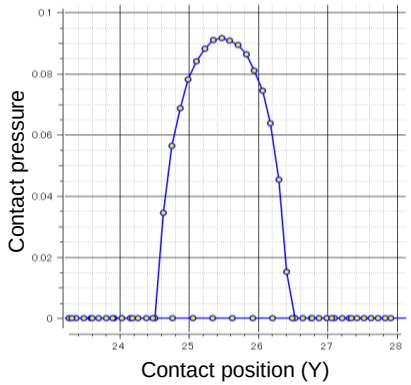
before assembly → after assembly



Deformations



Amount of compression versus Reaction force



Contact pressure distribution at assembled