

Concept[®] - Pedestrian Safety - Simulation Impactors



Uses:

In order to get the opportunity to use simulation as authoring tool for pedestrian safety at the vehicle, the use of appropriate designs of impactors for simulation is essential.

All designs for simulation are according to the specifications as defined by directive 2003/102/EG and 2004/90/EG, EuroNCAP, JMILT alternatively ACEA and are conform to certification tests as prescribed.

Designs:

All available FE (Finite Element) Designs of impactors are developed in our simulation department and validated in close collaboration with our test department.

Validation process demonstrates a reiterative process which has the benefit of a continual improvement of the FE- impactors.

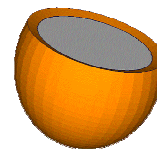
	Pam Crash	LS-DYNA
directive 2003/102/EG and 2004/90/EG Child head 2,5 kg	x	x
directive 2003/102/EG and 2004/90/EG Adult head 4,8 kg	x	x
ACEA Child head 3,5 kg	x	x
directive 2003/102/EG and 2004/90/EG Legform	x	x
directive 2003/102/EG and 2004/90/EG Upper Legform	x	x

Availability:

The availability of all designs for varying requirements and all current Crash-Simulationprograms PamCrash and LS-DYNA are below- mentioned.

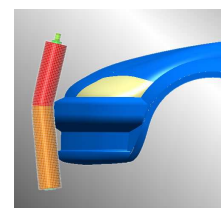
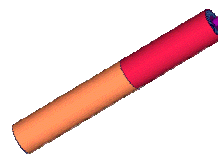
Headforms:

- directive 2003/102/EG and 2004/90/EG
Child head with 2,5 kg
- directive 2003/102/EG and 2004/90/EG
Adult head with 4,8 kg
- ACEA Child head with 3,5 kg
(equivalent to Japanese Child head)



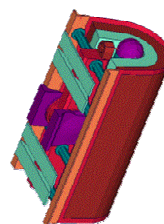
Legform:

- directive 2003/102/EG and 2004/90/EG



Upper Legform:

- directive 2003/102/EG and 2004/90/EG



Benefits at a Glance:

- ✓ All impactors are developed by an user and are in use in our simulation department as well.
- ✓ The designs are subject to a continuous improvement

Validation:

The process of validation brings out a cycle, which guarantees a permanent improvement and optimisation of the designs.

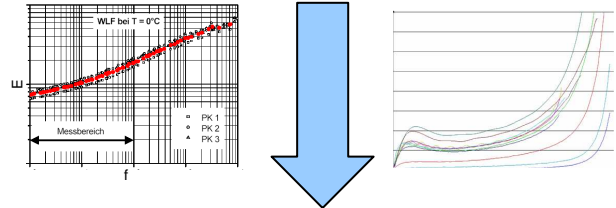
Material analysis and validation tests will guarantee that all designs are conform to the state-of-the-art.

Following sequence will be maintained behalf validation:

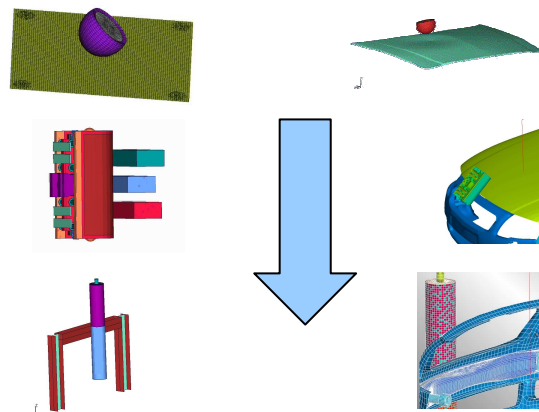
1. Material analysis
2. Validation on the basis of adequate superstructural parts as well as vehicle components.
3. Inspect of the impacts on the basis of certification according to directive 2003/102/EG and 2004/90/EG.
4. In order that it will be warranted, that the designs are not validate on the basis of certification.

Validation process

Material analysis



Validation



Certification as according to directive 2003/102/EG and

