Press Release 5/2019

New service from DYNAmore:
free material cards for more than 60 steel grades

Stuttgart/Linz, November 18th 2019

In cooperation with the Austrian steel manufacturer voestalpine, DYNAmore has created a material database for various steel grades. The material cards are now available for LS-DYNA users and can be requested from DYNAmore free of charge.

Some of the steel grades sold by voestalpine are now available for free use by LS-DYNA users. The data was provided in Excel format by voestalpine and converted by DYNAmore employees into the LS-DYNA keyword format. A total of more than 60 different types of steel are available. Among them are:

- Mild Steels

- High Strength Low Alloy Steels (LA or HSLA)

- Bake Hardenable Steels (BH)

- High Strength IF-Steels (IF)

- Carbon manganese steels

- Dual Phase Steels (DP)

- Complex Phase Steels (CP)

- Dual Phase Steels with improved formability

- Martensitic Steels (MS)

- Press hardening steels (phs)

The data is structured in subdirectories. The respective steel grades are distinguished between cold-rolled steels and hot-rolled steels. Furthermore, two unit systems MPa_ton_mm_s and GPa_kg_mm_ms are available. For each steel, there are two files in LS-DYNA keyword format:

- CR1-GI_DX52D-Z.dyn: Material card for LS-DYNA (each MAT_036: 3 R-values + yield curve)

- CR1-GI_DX52D-Z_ISO_12004-2_Transverse_1.00_mm.fld: Forming Limit Curve for postprocessing with LS-PrePost

DYNAmore GmbH makes the data available to its customers free of charge. Interested parties are welcome to contact DYNAmore at info@dynamore.de. All you need to do is sign an agreement to receive it.

DYNAmore would like to thank voestalpine for providing the data and is looking forward to future projects.

About DYNAmore

DYNAmore is dedicated to support engineers in solving nonlinear mechanical as well as multiphysical problems numerically. The product portfolio includes the finite element solver LS-DYNA, the pre- and post-processor LS-PrePost and the optimization software LS-OPT as well as numerous finite element models needed for crashworthiness simulation. The main field of activity is to sell, teach, support, and co-develop the software LS-DYNA and LS-OPT. In addition, DYNAmore provides engineering services for numerical analysis and integrate simulation software in the CAE environment.

DYNAmore offers training including seminars, workshops, webinars, support and information days as well as LS-DYNA user conferences. More detailed information can also be found on our support and tutorial websites. DYNAmore is one of the first addresses for pilot studies and development projects with respect to the simulation of nonlinear dynamic problems. You will find DYNAmore in Stuttgart, Dresden, Ingolstadt, Berlin, Langlingen, Wolfsburg, Zurich (CH), Linköping (S), Gothenburg (S), Versailles (F), Turin (I) and Dublin, Ohio (USA).

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