TATA STEEL

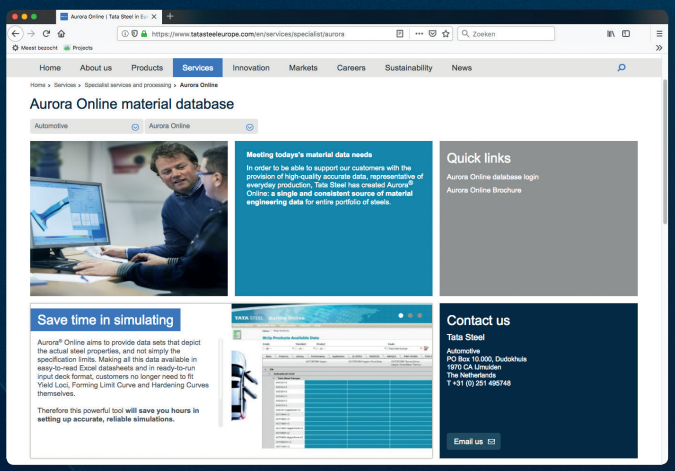
TATA

Aurora® Online

Single and consistent material data for entire portfolio of steels

Fast and easy access to reliable material data

Aurora® Online offers a complete overview of the steel grades supplied to the demanding markets such as automotive, construction, packaging and engineering by Tata Steel. This cutting edge online database contains comprehensive, up to date material files, data sheets and ready to run input decks. Aurora Online enables customers to set up accurate, reliable simulations. A direct link between the steel mill and database provides precise information representing the actual material properties required for validating processes.



Aurora Online at a glance

- Comprehensive materials database
- Reliable, accurate data
- Choice of basic or advanced data sets
- Ready to run input decks
- Quick and easy 24/7 electronic access
- Improves understanding of materials performance
- Supports shorter lead times
- Reduces total cost of ownership

Meeting today's material data needs

In order to be able to support our customers with the provision of high-quality accurate data, representative of everyday production, Tata Steel has created Aurora® Online: a single and consistent source of material engineering data for the entire portfolio of steels. As a result, OEM's are using more advanced, ultra-high strength steels to reduce weight, enhance safety into lower total cost of ownership (TCO).

Faced with a growing need to reduce lead time, improve product quality and reduce the cost of prototyping, OEM's use CAE (Computer-Aided Engineering) solutions to simulate metal applications in new vehicle design projects. These tools make it possible to quickly and cost effectively forecast the entire vehicle lifecycle and analyse formability, assembly processes and in-service performance. This requires accurate and reliable material performance data.

Responding to industry demands, we created Aurora Online, a single, consistent source of high-quality data.

Complete information on demand

Through this web application, we provide material data that accurately reflects everyday production conditions. Along with basic information on the chemical and mechanical properties of the most common steel grades, data sheets with advanced material engineering data can be downloaded from Aurora Online.

Aurora Online data sheets contain comprehensive information on formability, weldability, fatigue and crash performance. As part of the advanced data sheets for formability analysis, our web application supports Tata Steel's Vegter plasticity model and Abspoel & Scholting FLC as well as thermomechanical hardening data. Aurora Online contains fracture data to meet the growing need to predict model fracture during crash and forming analysis.

Ready to run input decks

This system can also generate ready to run input decks. These are material files that can be used with CAE software to run forming and crashworthiness simulations. Support is currently available for ABAQUS, AutoForm, LS-DYNA, RADIOSS and PAM-STAMP/PAMCRASH.

Variability data

Aurora Online provides data sets that depict the actual product properties, and not simply the specification limits. These data sets can be adjusted to represent typical, or minimum / maximum product properties, depending on your specific requirements. Used in simulations, this is a very powerful tool.

Up to date content

Aurora Online is continuously updated with new steel grades and material data. This guarantees consistent data across all projects and reliable communications with customers. A special news section features the latest product developments.

For more information and access to Aurora® Online:

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Higher simulation accuracy, shorter leadtimes

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