

Anadolu Cam

Reducing design time by 50% with CATIA



Anadolu Cam Sanayii A.Ş.

Overview

■ Challenge

In the highly competitive glass packaging market, Anadolu Cam must remain one step ahead of the competition by providing quality products without increasing development costs.

■ Solution

Anadolu Cam uses CATIA to design all its glass packaging, as well as to perform stress analyses and clash simulations.

■ Benefits

Anadolu Cam has cut design time in half and now proposes more design alternatives to its customers. This has enabled the company to take on more projects and consequently increase its overall business.



“We used to waste too much time when designing products that have complex surfaces or engravings, but with CATIA, we’ve reduced this time by 50%.”

Ozgun Hodul
Mold Design Engineer
Sisecam Anadolu Cam

Leaders in glass packaging

Anadolu Cam is the glass packaging division of Turkey’s Sisecam Group. In addition to packaging, Sisecam Group also produces flat glass for building windows and vehicles, and glass tableware such as plates and drinking glasses. The company is also present in the mining, chemical, paper packaging, mold and machinery manufacturing industries. One of Europe’s leading glass packaging suppliers, Anadolu Cam has nine production facilities in countries such as Turkey, Georgia and Russia.

Quality products in a competitive market

The glass production sector is highly competitive and Anadolu Cam maintains its leading edge by delivering quality products to customers before the competition without raising costs. Anadolu Cam chose CATIA for its industrial design and advanced engineering departments with the express goal of introducing new packaging designs at an accelerated pace. “Expert designers

in our design center produce creative and innovative designs with CATIA faster than go above and beyond customer requirements for sturdiness, style and function,” said Ozgun Hodul, Mold Design Engineer, Sisecam Anadolu Cam.

A three-phase process

Anadolu Cam’s three-phase development process begins with the product design phase in which designers create 3D conceptual design models according to customer requests. After iterations with the customer using CATIA, the design is finalized and the layout design phase begins. “Our customers are very enthusiastic because with 3D they can easily visualize early designs of the product, changes can be implemented in real-time, and they can see a virtual representation of the finished product before it’s manufactured,” said Hodul.

In the final mold and accessories design phase, designers model the mold of the glass package and its various accessories.



The resulting models are used by the mold manufacturer to create the molds, which are then sent to production plants for manufacture of the bottles. "Mold manufacturers can directly use the 3D data to process the mold," said Hodul. "This has not only shortened the overall manufacturing process, it has also prevented possible errors, since 2D drawings can sometimes be misinterpreted."

Design consistency and style

CATIA enables Anadolu Cam to prepare robust and reliable models and implement design revisions in record time. "When our designers change a figure, dimension or parameter, CATIA automatically updates the entire design. This ensures consistency from design to production," said Hodul. Anadolu Cam also takes advantage of CATIA's extensive surfacing capabilities. "We can design the most complex and difficult surfaces, which enables our designers to create outstanding, stylish and original glass packaging," said Hodul. "With CATIA, no bottle is impossible."

Anadolu Cam uses CATIA's knowledgware capabilities to ensure compliance with production requirements. It also uses CATIA's analysis functions to perform load analyses and clash simulation tests between the cavity

of the bottle and the mold. "When the mold is pressed together and opened, we need to see if there is any interference between the glass and the mold and CATIA allows us to visualize this very clearly," said Hodul.

Designing 50% faster

Anadolu Cam has halved its design process time since it began using CATIA. As a result, the company can take on more projects and business has increased. "We used to waste too much time when designing products that have complex surfaces or engravings, but with CATIA, we've reduced this time by 50%," said Hodul.

In the near future, the company plans to use templates and methodologies to further accelerate the design process. In line with its strategy for continuously improving the lifecycle management of its products, Anadolu Cam is investigating the possibility of using 3DVIA Composer and ENOVIA SmarTeam to create its documentation and manage all product data.

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