



CASE STUDY /

Ansys + Saudi Aramco

“Ansys’ Granta Selector is a tool that is well integrated with our nonmetallic corporate initiative and is an input to material selection. The methodical and logical selection approach, coupled with a large polymer and composite database, gave our engineers and partners a material solution in a very short time.”

Thibault Villette

Science Specialist / Saudi Aramco

Using Ansys Granta Selector to Select the Right Thermoplastics for Challenging Environments

Saudi Aramco's team was challenged with developing long lifecycle, multilayered, multimaterial reinforced thermoplastic pipelines (RTP) within a tightly regulated offshore oil drilling industry.

/ Challenges

The product would be subject to rigorous and lengthy qualification testing to ensure that it met the challenge of operating in a wide range temperatures, pressures, and types of transported fluids. To overcome these challenges, the composite development team needed to collaborate with RTP manufacturers and suppliers.

/ Ansys Products Used

- Ansys Granta Selector

/ Engineering Solution

Saudi Aramco's composite development team used Ansys Granta Selector to find alternative materials for the design of multilayer thermoplastic systems. The software was integrated into Saudi Aramco's materials selection process to act as a reference platform for material data among the partners. Granta Selector offered the flexibility needed to interface with other engineering software being used on the project.

/ Benefits

- Only 2 hours were needed for users to become fully trained in using the software.
- Ten new candidate materials for RTP were selected from over 7,000 materials based on diverse criteria such as mechanical response, heat deflection, chemical resistance, processability, and cost.
- The Granta Selector is a tool aligned with Saudi Aramco's initiative for the development of nonmetallic applications in the Oil & Gas sector.

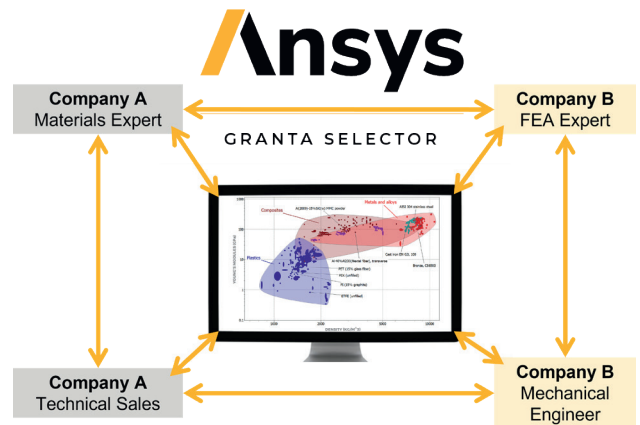
/ Company Description

Saudi Aramco is a Saudi Arabian multinational petroleum and natural gas company.

"The Granta Selector tool acts as a reference platform for material data, ensuring informed discussion and fostering consensus within partners."

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Science Specialist / Saudi Aramco



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