Baker Hughes

LIFESPAN blending model
Instantly calculate the blending risk of discounted cargos

The **LIFESPAN™ blending model** from Baker Hughes gives you instant access to blend stability predictions so you can make a quick purchase decision within a time-critical window and have the confidence your decision will be profitable and not put your operations at risk.

Direct access via your web browser speeds up your purchase decision

Relying on third-party sampling to evaluate asphaltene stability slows down the purchase decision, forcing you to take an uncalculated risk as the window of opportunity expires. The LIFESPAN blending model bypasses this step by providing direct access to a global database of crude oil and fuel oil data, enabling you to generate accurate calculations of asphaltene stability across a range of possible blending ratios. In a matter of minutes, this proprietary model predicts the relative stability of every potential blend, and you have all the information you need to assess the risk associated with any opportunity cargo and determine whether it is a best fit for your operations, your profitability goals, and regulatory requirements.

Ensure stability of your final blend

The LIFESPAN blending model leverages an extensive library of thousands of historical crude oil and fuel oil hand blends. When you plug in the assay data of an opportunity cargo, the model identifies historically similar crudes and utilizes non-linear modeling algorithms to simulate the asphaltene stability risk of user-defined blend scenarios. The model also predicts the relative impact of asphaltene destabilization on your crude preheat train. This helps you to quickly assess the impact of small changes in the crude oil blend composition. Armed with this information, your operations managers and unit engineers are able to:

- Alter operational parameters to minimize any anticipated instability challenges introduced by a new blend
- Select the right chemical additives to mitigate fuel oil stability risks and further protect blend stability

Contact Baker Hughes today to reduce the risk of instability and speed up your cargo purchase decision with the LIFESPAN blending model.

Applications

- Refineries needing to boost profits by processing new and opportunity crudes
- Fuel blending operations needing to maintain fuel stability and profitability

Benefits

- Rapidly calculate the risk associated with any crude or fuel oil cargo directly in your web browser
- Accurately determine the window of compatibility that ensures stability of the final blend
- Avoid off-spec fuel problems that lead to lost profits and regulatory challenges

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Asphaltene stability of a binary crude blend
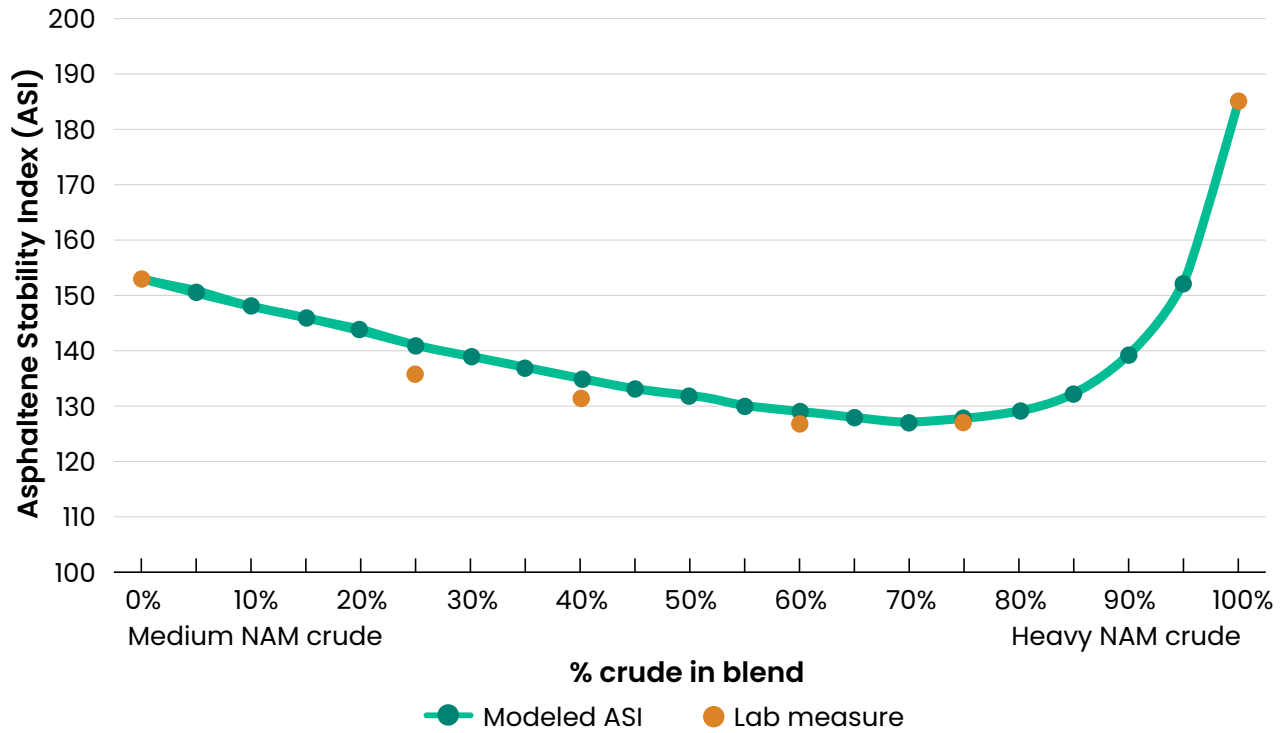
Asphaltene stability is not a linear function when blending two components together, making it critical to have an accurate prediction of the percentages at which a blend becomes unstable. Plotted here is the model output for a simple two-component blend from 0% to 100% intermediate crude, left to right, and the measured lab data for the same blend.

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