VOYEX

Hydrogen Powered

Voyex LOHC is non-toxic and not carcinogenic, can be synthesized from recycled plastics and/or biomass thus has a circular potential, has a high hydrogen capacity of ca 60 kg/H_2/m^3 and hydrogen is released (de-hydrogenated) at a temperature between 180 and 220 °C (ICE exhaust gas level). As both hydrogenated and de-hydrogenated substances are liquids these can be stored and processed in a regular storage tank of any shape.

Especially the latter characteristic is of distinctive importance as it allows an opportunity to effectively substitute diesel as a fuel with hydrogen for heavy duty applications while using known robust and economically ICE technology, infrastructure and process technology,

With the Voyex technology we aim to provide a solution for substituting diesel fuel in heavy duty applications such as trucks (longer distance), marine (inland shipping) and gensets for building & construction while keeping the risks and costs low due to the re-use of infrastructure and ICE technology.

Voyex has three core activities, 1) synthesis of the LOHC substance, 2) developing technology to bond the hydrogen (‘hydrogenation’) and 3) releasing the hydrogen (‘de-hydrogenation’). We develop our technology in-house in the Netherlands in our labs and offices in Delft. At the moment we are at a TRL 4 - 4,5 level (concept has been proven) and are now scaling up with the aim to have a synthesis & hydrogenation pilot plant in operation Q4/2025 and several 100-200KVa gensets in the field in 2026.