oSTORE – PLASTIC WASTE TO LOHC

*Nm³ refers to Standard Reference Atmosphere acc. DIN 1945-1 (p = 1,0 bar and t = 20°C)
Data related to average calculated performance data

PRODUCT DESCRIPTION:

The oSTORE product range from H_2-Industries is designed to process large quantities of organic residual and waste materials. These include, for example, plastic waste as well as biogenic residues (hydrocarbons (C_mH_n)) from agriculture and forestry and waste from the food industry as well as sewage sludge. By means of the integrated thermolysis plant, hydrogen is generated in a controlled manner from the above-mentioned waste materials, which is chemically bonded to a liquid organic hydrogen carrier (LOHC) within the H_2-STORE CELL from H_2-Industries and can thus be stored over the long term. The resulting charged LOHC (LOHC+) is then fed into associated storage tanks. The waste heat from this exothermic process must be removed from the plant and can be used for downstream processes or other applications. Waste thus no longer becomes a problem, but a valuable solution for a climate-friendly energy supply, since the CO_2 released is captured and not released into the atmosphere.

This opens up new market opportunities as a hydrogen producer or trader.

GENERAL INFORMATION:

Dimensions in mm (LxWxH)	6,058 x 2,438 x 2,591 mm
Weight	ca. 20,000 kg

INPUT PARAMETERS:

Organic Waste (C_mH_n)	ca. 100 kg / h
Water	ca. 280 l / h
LOHC – (unloaded LOHC)	ca. 700 l / h

OUTPUT PARAMETERS:

LOHC + (enriched with H_2)	ca. 700 l / h
Equals H_2	ca. 40 kg / h ; 445 Nm³ / h
CO_2 captured in bottles	ca. 300 kg / h

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