



SilcoTek[®] Coatings for the Hydrogen Economy

SilcoTek's coatings have been used in fuel and energy production markets for years, and as the world begins to adopt Hydrogen, SilcoTek remains committed to helping create clean, high-quality energy. An inert coating will benefit hydrogen use and production by improving trace detection of reactive compounds, sulfur, and ammonia, allowing hydrogen process facilities, transport systems, and downstream users to reliably detect potentially catastrophic damaging contaminants. SilcoTek coatings also enable users to detect emissions of target contaminants or process emissions. SilcoTek coatings can also improve the corrosion resistance and lifetime of materials used in the production, transport, and distribution of hydrogen.

- **Improve Detection** SilcoTek's coatings accurately detect emissions from hydrogen production and detect impurities in hydrogen fuel samples.
- **Manage Purity** An inert barrier reduces corrosion and contamination, improving the stability of hydrogen in storage.
- **Increase Production** By improving the detection of catalyst poisoning, SilcoTek coatings contribute to the control of desired/undesired catalysis and more efficient production.
- **"Go Green"** SilcoTek coatings are inert and don't introduce any harmful substances while enhancing the performance of components used to produce, transport, and use hydrogen energy.
- Enhance Performance Improve water detection and icephobicity in hydrogen flow paths to prevent moisture contamination in hydrogen production, fuel delivery, and use.



A SilcoTek-coated flow path can improve:

- Trace sulfur and sulfur compound detection.
- Ammonia, inert gas, and emissions detection.
- Prevent contamination from metals.
- Water and ice management.
- Corrosion resistance.