

# News Release

P382/20e  
December 2<sup>nd</sup>, 2020

## Shell qualifies BASF Durasorb™ Cryo-HRU technology for removal of heavy hydrocarbons and water from natural gas

- **Durasorb Cryo-HRU provides an effective solution for removal of trace heavy hydrocarbons (HHCs) and water from lean natural gas feeds for cryogenic processing**
- **Durasorb Cryo-HRU is suitable for both new units and retrofits**
- **Operators benefit from increased plant reliability due to removal of freezing components prior to liquefaction and flexibility for changing feed gas compositions**

Leveraging the extensive know-how and experience of BASF adsorption experts, Shell has qualified BASF Durasorb™ Cryo-HRU technology for deployment in Shell gas processing plants with lean feed gas streams. Use of Durasorb Cryo-HRU technology, in the pre-treatment section of an LNG production plant offers an effective solution for the removal of trace HHCs, BTEX (benzene, toluene, ethylbenzene, xylene), and water to cryogenic specifications in a single unit. HHCs and BTEX impurities are known to cause freezing in the coldbox resulting in plant downtime and are especially challenging due to the need to remove deeply even from lean feed gas streams. Durasorb Cryo-HRU effectively removes these impurities while also removing water to cryogenic specifications. Implementing Durasorb Cryo-HRU in the LNG pre-treatment section ensures reliable operation and provides operational flexibility to the plant.

Durasorb Cryo-HRU technology is also a retrofit solution for dehydration units that are expecting a change in feed gas composition. BASF will utilize proprietary

modelling software to model and design the Durasorb Cryo-HRU and provide Shell with on-going support for efficient operation and design of new plants.

“The qualification of our technology by Shell is a major milestone for our Adsorbents business. BASF quickly addressed the customer need with an innovative solution. We will continue to work with Shell and support their efforts to incorporate Durasorb technology in their projects,” says Detlef Ruff, Senior Vice President Process Catalysts at BASF.

“BASF is pleased to provide Shell with an innovation to address challenging gas compositions. The operational expertise of Shell and the adsorption expertise of BASF have provided Shell with a step-change technology to address the challenge of processing lean feed gas containing heavy hydrocarbons and BTEX,” adds Adrian Steinmetz, Vice President Chemical Catalysts and Adsorbents at BASF.

“The deep removal of trace heavy hydrocarbons to cryogenic specifications is a key requirement in LNG production from lean or pipeline feed gases. The BASF Cryo-HRU technology provides an effective solution for combined removal of these hydrocarbons and water. Shell is pleased that the technology is now available for use in Shell as well as by the support BASF will provide in implementing the technology for specific cases,” comments Ed Schouten, General Manager Gas Processing Technology in Shell.

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