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CONCLUSION
on examination results
of Synthetic Liquid Fuel Production Method
using greenBLAZE processor

The method of synthetic liquid fuel production, suitable for use in internal combustion engines, offered by ADGEX Limited, is based on the thermochemical processing of various carbon-containing raw materials, including oil waste, coal waste and peat waste, as well as municipal solid waste, wood and agricultural waste.

To implement this method, the greenBLAZE processing plant has been designed, in which the vacuum thermochemical destruction of carbon-containing raw materials takes place. As a result, syngas is generated, which is compressed and converted into high quality synthetic liquid fuel (diesel, gasoline A98) in columns with industrial catalysts.

The capacity of this processor varies from 50 to 100 liters per hour for synthetic liquid fuel. The quality of the synthesized diesel or gasoline complies with Euro 5 standard.

To produce 1 ton of synthetic fuel, 5 tons of waste with carbon content of 35-40% are required. If the carbon content is higher, for example, in coal, the yield of synthetic motor fuel may be repeatedly increased.

The results of laboratory examination of synthetic gasoline have shown that the octane number of synthetic gasoline is not less than 98. The sulfur content in synthetic gasoline is significantly lower than in gasoline produced from Urals crude that allows predicting the increase in engine reliability and reduction of harmful effects on the environment.

The amount of paraffin in synthetic diesel is insignificant, the freezing temperature is below -50 ^{0}C.

The advantages of greenBLAZE technology are the following:

1. Any carbon-containing raw materials (waste) can be processed without pre-sorting.
2. The processor can be stationary as well as mobile installed on a truck platform and/or in a container.
3. The processor can operate independently of external sources of electrical energy.
4. The process of vacuum thermochemical destruction occurs at the temperature of 700 ^{0}C, which ensures low wear of the reactor, if heat-resistant and heat-proof materials are used.
5. If the specified operating parameters are observed, the processor is safe in service and slightly pollutes the environment.

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