

HPDLA

Lubricity Additive for BS-IV and BS-VI Diesel

Lubricity is “a qualitative term describing the ability of a fluid to overcome the friction between, and wear to, surfaces in relative motion under load”. Lubricity is not an intrinsic fluid property and depends on its composition, the mechanical forces present at the point of contact and the material characteristics of the surfaces in relative motion.

Certain elements such as sulphur in distillate motor fuels can significantly enhance its apparent lubricity. Owing to the stringent clean fuel standards that limit sulfur content (50 ppm as per Euro IV standard and 10 ppm as per Euro VI) in distillate motor fuels (MS, HSD, ATF etc.), alternative additives to substitute “S” have to be developed.

Lubricity additives, in the form of surfactants (long chain fatty acids), are used to compensate for the loss of lubricity in severely hydrotreated diesel fuels. The surfactants are accumulated on the interface and readily adhere to metal oxide surfaces to form a protective thin film and reduce the friction significantly. The main drawbacks of these vegetable oil based lubricants are the change in physical properties (viscosity) and composition

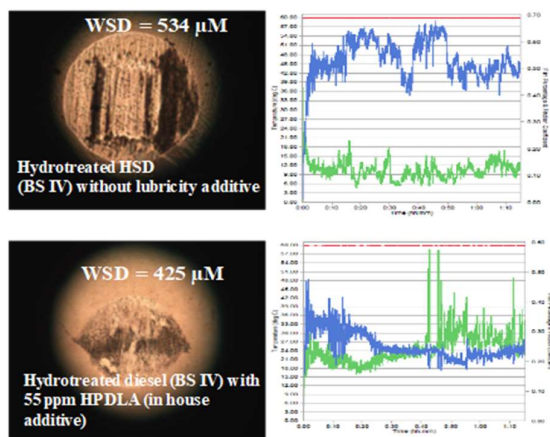
due to the climatic and regional conditions, respectively. These factors are not favorable for blending in diesel.

Thus, there is a need for the development of a Novel and cost-effective lubricity additive which would function irrespective of climatic and other factors.

HPCL R&D has developed a Synthetic Diesel Lubricity Additive. The final formulation was tested at HPCL Visakh Refinery.

The efficiency of the indigenously developed additive, HPDLA, could be attributed to the inherent excellent affinity of steel surfaces.

The indigenously developed additive has shown 25-40% improved activity (reduced dosage) compared to Benchmark additives.



HPCL offers HPDLA, a Diesel Lubricity Additive, for BS IV and BS VI Diesel with enhanced lubricity.