HP IPCA -LPG Additive for Industrial Thermal applications

Oxy-acetylene remains the preferred choice for metal-cutting applications even though it is expensive and difficult to store and handle. The main drawback of other oxy-fuels (such as LPG, natural gas, etc.) is the considerably lower flame temperatures. To overcome these limitation, HPCL has developed a novel LPG additive, HP-IPCA which not only improves flame temperature but also considerably reduces both LPG and oxygen consumption.

Unique features of the Additive:

- The developed additive, HP-IPCA, efficiently catalyzes the oxidation of the fuel. Thereby maintaining proper stoichiometry and reaction rate which in turn increases the flame temperature and reduces both fuel and oxygen consumption.
- About 25% reduction in fuel consumption and 10% reduction in oxygen consumption was achieved
- The additive does not contain any aromatics and is environmentally benign.
- As the additive formulation is completely soluble in LPG it provides much better catalytic performance compared to contemporary nanoparticle dispersion.
- Also unlike dispersions, precipitation and deposit formation is negligible, resulting in improved shelf life.







Performance Evaluation for RINL, Vizag 90 Sq mm*6 nos Billets

The additized LPG, with the brand name HP-RAZOR

- Faster pre-heating & piercing rates as compared to DA
- High flame temperature of 3000oC
- Faster cutting speed as compared to DA.
- Reduced slag & Relatively less surface roughness cut as compared to DA.
- Cheaper than Acetylene.
- Enhanced safety due to its narrower flammability limit as compared to DA and negligible risk of back-fire in the torch
- No sooty flame and lower carbon formation.
- Narrower Heat Affected Zone (HAZ) as compared to DA.

HP RAZOR is certified by Welding Research Institute, BHEL, and Llyods Inspection Agency to be superior to both acetylene and LPG in critical cutting parameters