

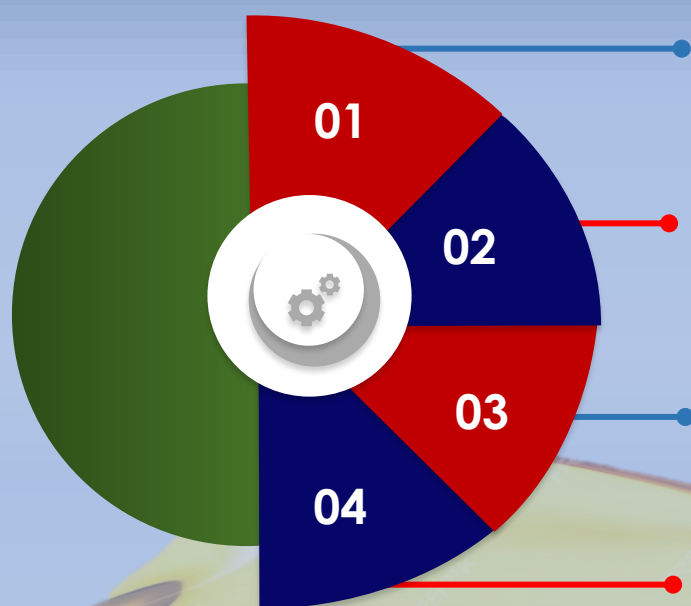


HP PMA

Propylene Maximization Additive for FCCU

- Propylene is a very essential building block in the petrochemical industry. Worldwide, Fluid catalytic cracking units are the second largest propylene source.
- HP-PMA is a novel ZSM-5 additive for enhanced propylene production in FCCU.

ZSM-5 zeolite is modified for higher propylene yield

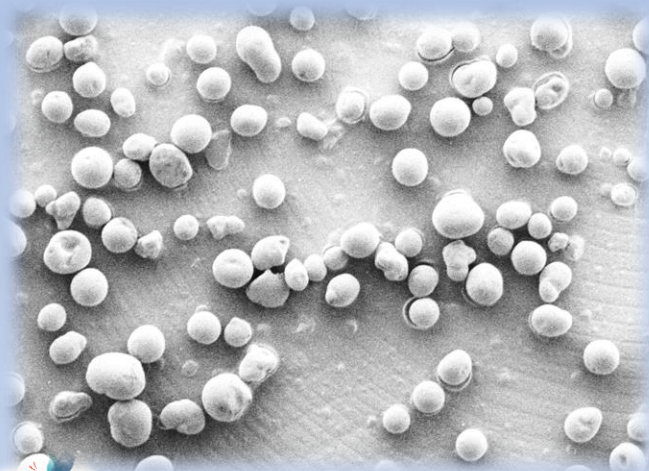
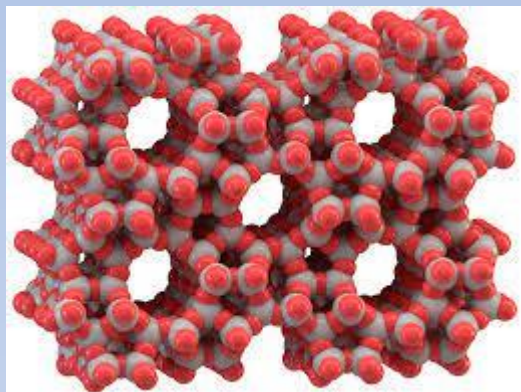


**Enhanced
AI STABILIZATION**

**Fine tuned
ACIDITY**

**Arrested
ATTRITION**

**Enhanced
ACTIVITY**



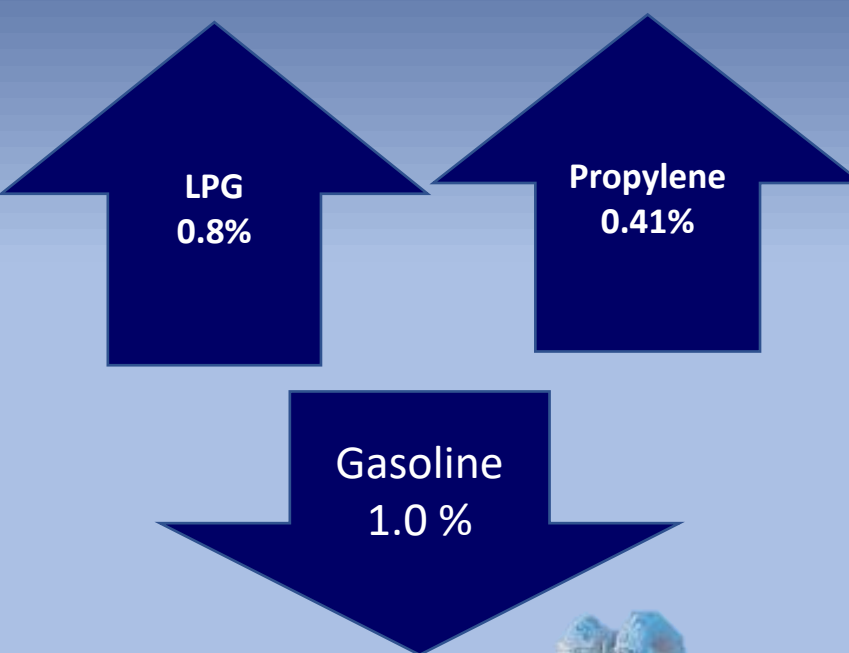


HP PMA

Propylene Maximization Additive for FCCU

HP PMA: Novel Catalyst formulation developed in-house at HPGRDC exhibiting superior results

Performance of HP-PMA at Visakah Refinery w.r.t base case



- Cost effective than competitors

- Improved Propylene yield

- Improved LPG yield

- Innovative Catalyst approach