

Petrochemicals

The Petrochemical & Polymer research at IndianOil R&D is focused on the following platforms:

- Development of Ziegler-Natta catalysts
- Post reactor modifications for the development of new products
- New grades through additization
- Heterogeneous catalysts and adsorbents for Petrochemical Processes
- Providing technical services to the Business Development - Petrochemicals Group and Plant troubleshooting

RESEARCH ACTIVITIES:

- Catalyst Synthesis and Characterization
- Pilot Plant Evaluation
- Polymerization (Slurry, Bulk) using Ziegler-Natta and Single Site Catalysts
- Polymer Processing
- Polymer Characterization in solid, melt and solution
- Blends and Composites including nano-composites
- Rheological and Mechanical Studies
- Additive Evaluation & New Product Development
- Evaluation of adsorbents and catalysts

PETROCHEM RESEARCH FACILITIES:

- Polymerization Reactors-(0.5L, 1L)
- PP Pilot Plant Batch-4 Kg
- Oligomerisation Reactor
- Dynamic Mechanical Analyzer
- Capillary and Rotational Rheometer
- Micro-injection Moulding and Micro-compounder
- Universal Testing Machine
- Injection Moulding Machine
- Twin-Screw Extruder
- Compression Moulding Machine
- Melt Flow Indexer-Multiweight
- Impact Tester (IZOD / Charpy)
- Hot stage Microscope
- Particle size analyzer
- CRYSTAF
- UV Weatherometer
- Low field NMR (20 MHz)