RES solves product quality problems for commercial polymer production by deploying first-principle polymer chemistry and reaction engineering.

RES Experience Includes:
- Ion Exchange Resin
- Polyolefins - LDPE, LLDPE, PP, ICP
- Suspension & Emulsion Polymers - PVC, PVAc
- Ethylene-Vinyl Acetate, Alcohol
- Polystyrene - GPPS, SAN
- Engineering Plastics - PET, PBT, PC
- Super Absorbent Polymer
- “Green Polymers” – CO2, biomass feedstock

Overcome Tough Product Quality and Design Challenges with RES’ Services in Polymer Reaction Engineering

Breakthrough Improvements in Product Quality
- RES solves product quality problems for commercial polymer production by deploying first-principle polymer chemistry and reaction engineering
  - Molecular structure properties:
    - Control of gels
    - Composition distribution
    - Branching
  - Morphological structure properties:
    - Control particle size distribution
    - Porosity
    - Bulk density

Expert Advice to Enhance Project Feasibility
- Reliable reactor scale-up through efficient utilization of pilot data with first-principles reaction engineering, drawing upon RES’ many years of commercial scale experience
- Identify optimal reactor conditions through simulation over a wide range of operating conditions
- Provide safety, controllability and emergency shut-down scenarios by simulating potential system perturbations and double-jeopardy scenarios