

Steward

Advanced Materials

Product Development and Testing

Steward Advanced Materials is a custom design and manufacturer of magnetic materials and alloys from pilot plant batch stage to full-scale large volume production. As a fully integrated ISO 9001 company, we design and control each step of the production process from certification of in-coming raw material to finished product.

Under proprietary information agreements (PIA) we can design and supply custom advanced materials to meet the specific needs of our customers.

Our production and testing capabilities include, but are not limited to -

In House Production Capabilities:

- Fully equipped pilot plant
- Raw material mixing (dry and wet)
- Raw material grinding (attrition, ball milling, etc.)
- Calcination (sintering)
- Ball Milling
- Attrition Milling (dry, wet and solvent)
- Spray drying
- Sintering and Annealing (in Air and N₂ atmosphere)
- Screening equipment
- Air-Classification
- Blending
- Plasma and Thermal Spray

In House Testing Capabilities:

- X-Ray Fluorescence (Chemical analysis)
- Physical Properties (Density and Flow Rate, Sieve Analysis, etc.)
- Particle Size Characterization (Laser Diffraction)
- Surface Area and Porosity Analyzer (Micromeritics Tristar)
- Surface Passivation (Distilled Water, 10 pH and 5% Salt Water)
- Oil Absorption
- SEM with EDAX (Energy Dispersive Elemental Analysis)
- Magnetic Characterization
- Thermogravimetric analysis (TGA/DTA/DSC)
- Electric Resistance Testing
- Pressability Testing for Compatibility
- Furnaces capable of firing in special atmosphere
- Gas Porosimeter
- Moisture Analyzer

We also have access to a number of external laboratories and universities where we can obtain additional specialized testing as needed.

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To discuss your specific applications and request samples for testing please contact Scott F. Smith at:

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