

Developed Technical Knowledge and Reports

Syensqo has been investing R&I resources into Additive Manufacturing (AM) for many years now. Over this time, much internal knowledge and experience has been gathered and developed. Virtually all of this knowledge has been captured and documented in internal reports. These reports have been written by various individuals and all stored according to Syensqo policies within M-Files /KMS^2. If desired, please follow the normal procedures in order to request access to specific reports. The current reports are summarized below.

| Technology Type | Report Title | Document Number | Type | Short Summary |
|----------------------------------|---|-----------------|----------------------|--|
| Fused Filament Fabrication (FFF) | Additive Manufacturing of High Performance Polymers via Fused Filament Fabrication (FFF): Evaluation of KetaSpire® PEEK and Radel® PPSU in FFF Printing | 5262 | Developed Knowledge | Initial development of Syensqo's filament products |
| | Additive Manufacturing of High Performance Polymers (HPP) via Fused Filament Fabrication (FFF), Part II. Evaluation of Next Generation Candidates for FFF | 5296 | Developed Knowledge | Further development and improvement of Syensqo's filament products |
| | Sulfone Filament for Fused Deposition Modeling Aerospace Applications | 11443 | Developed Knowledge | Development of a sulfone filament possessing fire retardant properties for aerospace applications |
| | Development of PPA filament for Additive Manufacturing | 11459 | Developed Knowledge | A review of possible polyamide products within Syensqo's portfolio and development of filament from the best candidates |
| | Evaluation of PPS and Polyamide Compounds for Fused Filament Fabrication Additive Manufacturing | 11441 | Developed Knowledge | Internal study into the development of potential PPS and polyamide filament for FFF |
| | Solmyra® FTPE for Fused Filament Fabrication Additive Manufacturing | 11357 | Developed Knowledge | Internal investigation into filament printing of Solmyra® FTPE |
| | Additive Manufacturing Filament Process Development | 11356 | Developed Knowledge | Internal investigation into the improvement of filament quality for Syensqo filament products |
| | Polymer Physics of Additive Manufacturing: Welds, Polymer Relaxation, and Crystallization Kinetics | - | Developed Knowledge | A study of filament printing as it relates to modeling and polymer physics |
| | Competitive Analysis – Ensinger/Victrex Unfilled and 30% Carbon-Filled PEEK AM FFF Filament | 11452 | Competitive Analysis | An internal investigation into Ensinger filament composed of Victrex PEEK |
| Continuous Fiber (CF3D) | Development of AM-ready Filament Reinforced by Continuous Carbon Fiber | 11350 | Developed Knowledge | Development of continuous-reinforced carbon fiber PEEK filaments |
| Selective Laser Sintering (SLS) | Selective Laser Sintering – Part I: Introduction to SLS and Initial Efforts Toward Understanding the Technology | 11333 | Developed Knowledge | An introduction to SLS and Syensqo's initial research into SLS |
| | Selective Laser Sintering – Part II: Development of PEKK Powder for SLS | 11436 | Developed Knowledge | Syensqo's developmental efforts towards developing a polyetherketoneketone (PEKK) polymer powder for SLS |
| | Selective Laser Sintering – Part III: Evaluation of a Differentiated Polyaryletherketone Powder | 11448 | Developed Knowledge | Syensqo's developmental efforts towards developing a new, differentiated polyaryletherketone (PAEK) polymer powder for SLS and how it compares to PEKK |
| | Evaluation of Structured Polymers' PA12 Micropowder | 5203 | Competitive Analysis | An internal investigation into filled PA12 powder produced by Structured Polymers |
| | Competitive Analysis of Toray AM-Ready PPS Powder | 11353 | Competitive Analysis | An internal investigation into PPS powder reportedly produced for SLS by Toray |