

Solvay and Aerosint collaborate on 3D-printing specialty polymers

Bollate, ITALY, March 21, 2019 --- Solvay has entered a research collaboration agreement with [Aerosint](#) to develop an economically viable SLS printing process for high-performance polymers.

High-performance polymers such as [KetaSpire® polyetheretherketone \(PEEK\)](#) and [Ryton® polyphenylene sulphide \(PPS\)](#) have the potential to open new avenues for [Additive Manufacturing \(AM\)](#) in demanding applications, but their adoption with key powder fusion technologies such as selective laser sintering (SLS) remains limited today.

“SLS machines that can process high-temperature-polymers are carefully designed and assembled with sophisticated and expensive components. However, at present, there is a significant operating cost disadvantage during the build, which is the excessive waste of up to 90 percent of ‘used-but-unfused’ powder,” said Edouard Moens, managing director Aerosint. *“Our patented spatially-selective, multiple-powder deposition system under development incorporates a non-fusible support material in each layer where expensive high-performance polymers are not required, thereby reducing material waste to very low levels.”*

Solvay has been cooperating with Aerosint for over two years, supporting the development of their game-changing technology with advanced material, process and fusion expertise.

“As with all innovative, ground-breaking technologies there are many challenges to overcome. One of them is to develop and fully optimize high-performance AM polymer powders for use at high temperatures alongside non-fusible materials in a multi-powder deposition process,” says Brian Alexander, Global Product and Application Manager for Additive Manufacturing at Solvay’s Specialty Polymers global business unit. *“Not only will this technology make 3D printing of high-performance polymers more affordable, it also will open up its enormous potential to become a competitive industrial process for AM system manufacturers in the medical, aerospace and automotive sectors.”*

 [FOLLOW US ON TWITTER @SOLVAYGROUP](#)

Aerosint is a Belgian start-up company established in 2016. Aerosint, currently employing 7 people, spun-out of the start-up studio [M4KE.IT](#) Group and is financially supported by the Walloon Region, Meusinvest, the Innovation Fund as well as by private investor Peter Mercelis. Aerosint develops a selective powder deposition system that enables full 3-dimensional control over material placement in powder bed fusion printing processes. Effectively, the main invention is an alternate powder re-coating system that, instead of uniformly spreading just one single powder material, can selectively deposits two (or more) powders to form a single layer containing two (or more) materials. The powder can be a polymer, a metal or a ceramic.

Solvay is an advanced materials and specialty chemicals company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers worldwide in many diverse end markets. Its products are used in planes, cars, batteries, smart and medical devices, as well as in mineral and oil and gas extraction, enhancing efficiency and sustainability. Its lightweighting materials promote cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 27,000 employees in 62 countries. Net sales were €10.3 billion in 2018, with 90% from activities where Solvay ranks among the world's top 3 leaders, resulting in an EBITDA margin of 22%. Solvay SA ([SOLB.BE](#)) is listed on Euronext Brussels and Paris Bloomberg: [SOLB.BB](#) - Reuters: [SOLB.BR](#), and in the United States its shares ([SOLVY](#)) are traded through a level-1 ADR program. *Financial figures take into account the planned divestment of Polyamides.*

Solvay Specialty Polymers manufactures over 1500 products across 35 brands of high-performance polymers – fluoropolymers, fluoroelastomers, fluorinated fluids, semi-aromatic polyamides, sulfone polymers, ultra-high performance aromatic polymers, and high-barrier polymers – for use in Aerospace, Alternative Energy, Automotive, Healthcare, Membranes, Oil and Gas, Packaging, Plumbing, Semiconductors, Wire & Cable, and other industries. Learn more at www.solvayspecialtypolymers.com.

Media Relations

Enrico Zanini

Solvay Specialty Polymers
+39 02 2909 2127
enrico.zanini@solvay.com

Alan Flower

Industrial Media Relations
+32 474 117 091
alan.flower@indmr.com

Marla Witbrod

Solvay Specialty Polymers
+1 770 772 8451
marla.witbrod@solvay.com

Joe Bennett

AH&M Marketing Communications
+1 413 448 2260 Ext. 470
jbennett@ahmnc.com



[Press Release](#)