Materials boost for additive manufacturing

Henkel Adhesive Technologies has joined the HP Open Materials and Applications Platform and will work with HP in its Corvallis, Oregon 3D Materials and Applications lab to develop customised, industry-specific solutions for HP Multi Jet Fusion™ customers. Ashok Agarwala, Global Director of New Market Development at Henkel, explains why the company has entered the additive manufacturing space at this specific time.

Henkel is a global conglomerate with annual sales exceeding 18.7 billion Euros. Within this diversified group, Henkel Adhesive Technologies is established as the global leader in sealants and adhesives, which are used across all market segments, from packaging material to metals through to electronics.

Henkel has been monitoring developments in 3D printing for a while now, says Mr. Agarwala. "Initially the players in this industry were focused on consumer applications. The market has progressed now, however, and it's industry that's driving innovation in this sector. The aerospace industry in particular: this is interesting as it was the first to integrate CAD/CAM into its design process, and could now play a similar pioneering role in additive manufacturing, inspired by their efforts to bring down the weight and cost of aircraft structures, while improving fuel efficiency in the process. So it's a good time for Henkel to enter this market."

Henkel chose to partner with HP as their additive manufacturing platform is open source. "What we see in this industry is that many manufacturers of 3D printers also make their own materials. This in our view puts constraints on that industry, and slows innovation," says Mr. Agarwala. "HP's Open Materials and Applications Platform by contrast fosters collaboration and partnerships. This should speed up innovation in a cost-effective manner, and that's an environment Henkel is comfortable in."

HP last year announced its Multi Jet Fusion technology and its first commercial 3D printers, claiming that Multi Jet Fusion produces higher quality physical parts up to 10 times faster and at half the cost of earlier systems. HP partners with several world class manufacturers such as Henkel, and aspires to open a materials platform where customers can have an experience similar to an app store, with a variety of certified materials to choose from.

Henkel initially plans to leverage its hot melts platform for applications in additive manufacturing. The company manufactures and markets a broad portfolio of high performance hot melt adhesives for use in general industrial applications and consumer packaged goods. These hot melts are ideal for applications that require high speed manufacturing, bonding versatility, large gap filling, fast green strength and minimal shrinkage.

"We are confident that our in-depth understanding of manufacturing process integration will help accelerate the transition of additive manufacturing to production settings," states Mr. Agarwala. "And with an extensive geographic footprint and sales channel, Henkel will facilitate the implementation of additive manufacturing on a scope that rivals that of traditional industrial production."

Henkel

Henkel Adhesive Technologies
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