

## Opportunities for Silver Inks, Pastes and Coatings: 2016 to 2025

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### Summary

This is the latest in n-tech's series of industry analysis reports on functional silver inks pastes and coatings. In this report we identify the latest opportunities for these materials and the product/marketing strategies that are being deployed by the leading players in this space.

Silver inks and coatings suppliers have been quite lucky in the past. They were able to ride the consumer electronics boom in the 1960s supply the contact material and then grew through digital era supplying conductive material for the PCBs used in personal computers and then cell phones. When this opportunity began to fade, silver inks and coatings were able generate large amounts of revenues from the solar panel industry. However, when the solar panel business crashed a few years back, the luck of the silver inks and coatings sector seemed to have run out. Things weren't helped by the virtual disappearance of the plasma TV, another product that used a lot of silver paste.

In the past couple of years, n-tech believes that the silver inks and coatings sector has been out seeking a new host industry like the ones it could count on in the past. In this report, we provide a guide to where these new and revived markets will be found and where the silver inks and coatings market should look for new business revenue generation in the past:

One area where we project a renewed interest in silver pastes and inks is the solar panel industry, which is reviving after the great solar crash and is much more oriented toward crystalline silicon (c-Si) panels than before the solar crash. This is good news for the silver pastes business, because c-Si panels are major consumers of silver.

We also examine what the opportunities for silver inks and pastes will be in the light of the rise of the Internet-of-Things and wearables. Will these markets take over as growth sectors for silver, as traditional PCB markets begin to fade?

Yet, another area that we analyze in this report is the antimicrobial sector. Silver has long been recognized as a good microbial and the market for silver antimicrobial coatings is being boosted by concerns about hospital acquired infections and resistant microbes. Silver can be very effective, but in this report we also consider the impact of the new breed of smart antimicrobials (using, for example, peptides) and how silver will both compete with smart antimicrobials and be used as a constituent of such antimicrobials

Finally, we take one more look to see if nanosilver inks will ever make it out of the "research material" category. Over the decade that n-tech has provided coverage of the silver market we have heard many speculations about large emergent markets for nanosilver, but none has emerged. Do any of these speculations still ring true?

In this evolving market environment, this report identifies which market opportunities for silver inks and pastes are likely to be the most important over the next decade. And as with other n-tech reports, we also include detailed eight-year forecasts in both volume and value terms, with breakouts by application, type of material and type of printing process used. The report also contains an assessment of the product/market strategies of leading silver inks and pastes firms.

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