

InPro[®] MVF2

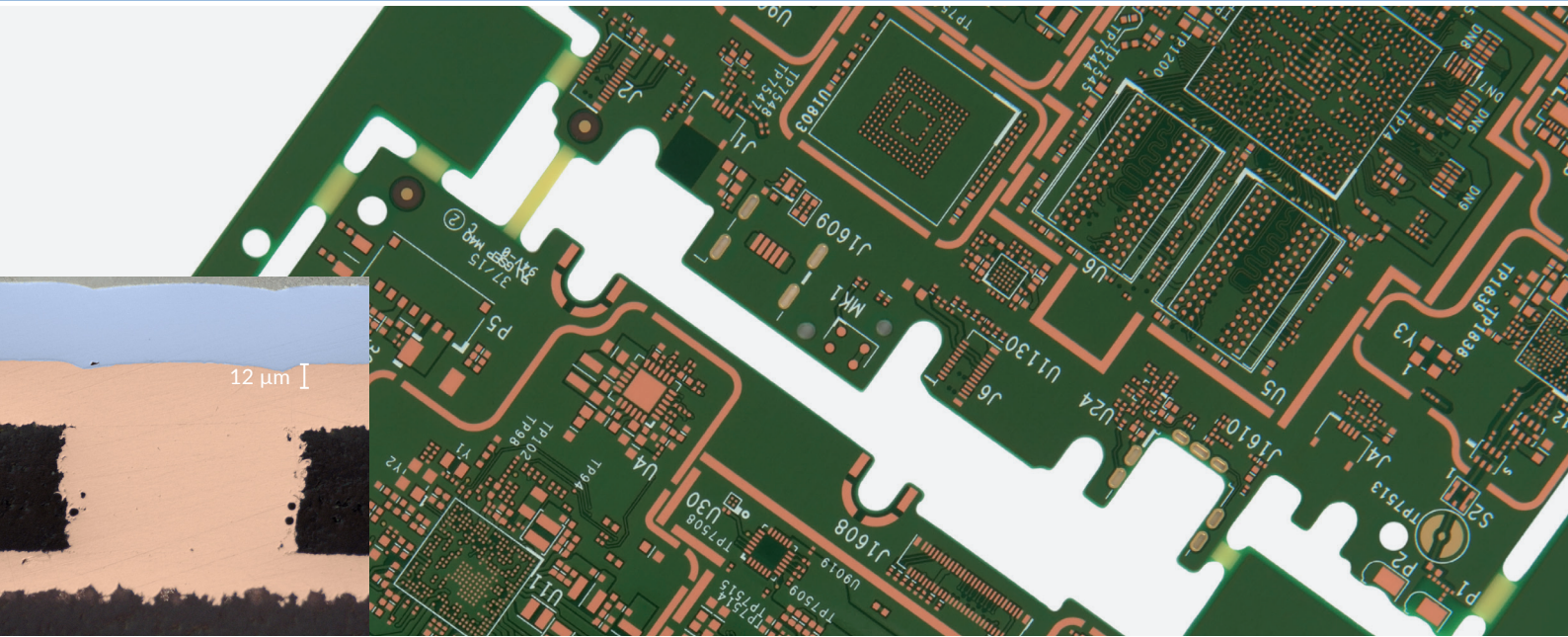
Advanced BMV filling



Electronics

Panel and pattern plating

atotech.com



Next generation blind micro via filling in VCP for HDI production

12

μm plated copper necessary for BMV filling (100×75 μm)

Advanced HDI BMV filling

Our next generation filling process is designed for vertical conveyors with insoluble anodes. It offers much improved filling performance and a wider working window compared to older generation products. By filling at lower surface thickness InPro[®] MVF2 enables cost saving potential and allows for finer resolution. The new process is applicable for next generation HDI BMV filling and also for half-filling in Flex application.

Excellent via filling performance at low plated copper thickness

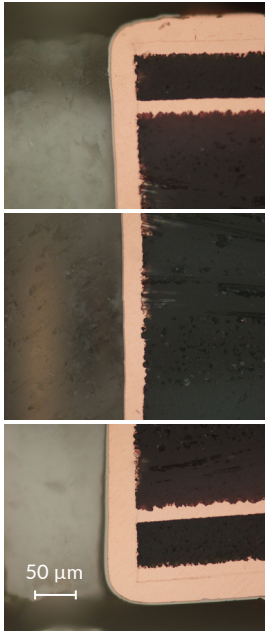
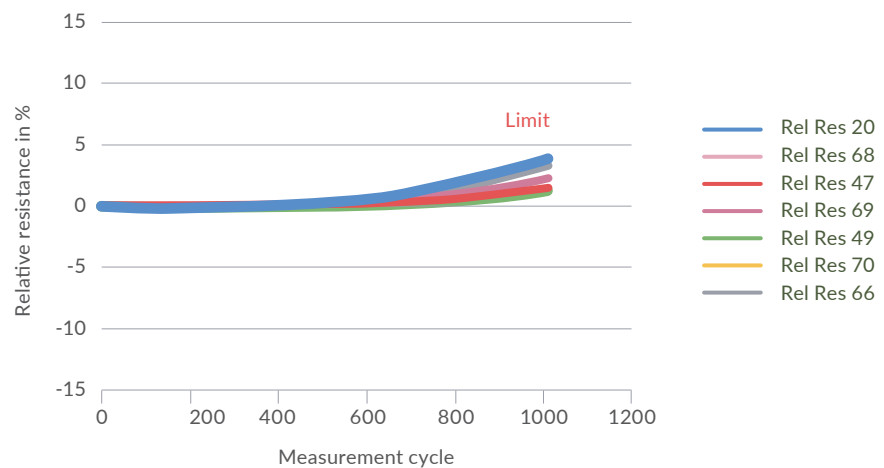


Figure 1-3:
Online TCT 1,000 cycles
passed TH with AR 6.4:1
and throwing power >70 %

Product details

InPro® MVF2 is a BMV filling process using insoluble anodes in vertical equipment. It is designed for use in DC mode with sparger agitation and external copper replenishment. It enables panel BMV filling with or without conformal through hole plating. This next generation process offers increased filling capabilities, better throw in through holes and a wider working window. All additives can be analysed by CVS for best process control.



Application

The process can be used for current and next generation HDI, flex and Automotive. However its outstanding filling capability makes it the ideal solution for advanced HDI and flex applications where very low plated copper surface is needed. The wide working window of InPro® MVF2 allows the use of high sulfuric acid concentrations and it also can be operated at high current densities up to 2 A/dm². The usage of inert anodes and panel plating assures for best uniformity in HDI production.

Features and benefits

- Improved filling of BMVs in HDI /Flex application at low surface copper thickness
- Outstanding throwing power in THs together with BMV filling
- Wide operating window for different applications
- Easy control of additives using CVS
- Reliable process with excellent physical properties

