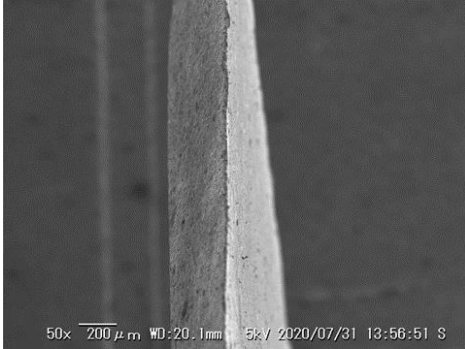


Mass production technology of metal components with thin wall

This SEM image shows a part of a thin-wall component we mass-produced, and its edge thickness is only 10 μm . It is required not only the mould and processing technique but also adequate material development.



In mould design for thin-wall structure components, it is well known that it is important to consider the gas extract upon injecting the feedstock (FS). Especially with the thin-wall structure moulding, the injection speed will be relatively fast since the FS temperature drops fast. Therefore the gas extract during the injection is significantly affected by the quality of thin-wall green parts. Furthermore, in mould tooling, fine polishing skill is required which realises the perfect parting line contact since the ultra-fine powder is deployed normally in our thin-wall component production.

The smaller and thinner designed components, the shorter the injection time is, therefore, high flowability FS is deployed. Generally, high flowability FS are brittle and the thin-wall design is difficult to demould. Our μ -MIM® technology has developed the FS for thin-wall structure mass production. Please also have a look at our newsletter Vol. 12 about our binder details. <https://bit.ly/3o2RQXS>

Exhibition

SIDO in Lyon, France



We participated in the trade fair "SIDO" on 3rd - 4th Sep. in Lyon, France for the first time after the COVID lockdown. About 350 companies exhibited and there were almost 8500 visitors in total (about 1700 visitors were online/7800 visitors in real).

This exhibition was for robot industries. It is said that the world market of AI and service robots (excluded the production processing robots) would grow to 263.4 million € in 2026. We have experienced mass production of metal components for robots and wearable products so we had fruitful discussions there.

Lyon is famous as a city of gourmet and an international food industry exhibition "SIRHA" is held every 2 years. Furthermore, the museum "La Cité Internationale de la Gastronomie" opened in 2018, which shows food culture, health and life quality related to food, French lifestyle and so on. Besides the business discussions, we enjoyed the delicious cuisine.



Column

Hello. I am Yuta Miyazaki, in charge of the appearance inspection and material-feedstock assessment in the injection moulding process. I have realised how important the control of the material or feedstock quality in MIM production is since the injected part appearance reflects the feedstock quality. I love to spend my time taking care of my car. It takes about 2 hours every weekend to clean my car up until its body shines so that it keeps its cleanliness for a week. Recently, I visited a Turkish restaurant, run by a Turkish person and I was very impressed with my first bite on the Turkish dish there. Since then, I got more interested in international cuisine.

