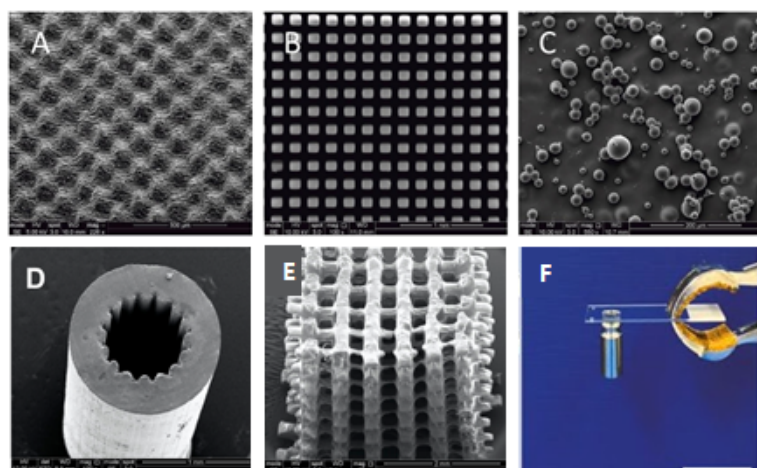


## Polycaprolactone methacrylate (PCLMA)

**Polycaprolactone methacrylate resin for a variety of applications such as coatings, 3D printable inks, microporous scaffolds for tissue engineering, and alternative food matrices.**



### Category

Research Reagents/New  
Research Reagents

### Authors

Prof Frederik Claeyssens  
Ms Meghna Suvarna  
Dr Fer Velazquez de la Paz

### Learn more



Our photocurable resins are suitable as sustainable coatings and packaging, for 3D printing, cultured meat and tissue engineering scaffolding applications.

We offer a wide range of polymeric resins. The resin properties can be tuned to align with the customer's demands, allowing us to cater to industries/companies developing materials in the field of biocompatible and elastic coatings, medical devices, cultured meat, and 3D printing inks.

Our resins:

- Are suitable for bio-based applications with proven biocompatibility with a variety of primary cells/cell lines
- Have tuneable mechanical properties and tailored biodegradability
- Fit with scalable manufacturing process, which can be tailored for sustainable approaches (e.g. green solvents, surfactant-free)
- Are photocurable (which makes them suitable as 3D printing inks), thermally stable between 60-80 °C, and adhesive under both wet and dry conditions

For more information, visit - <https://www.sheffield.ac.uk/commercialisation/current-opportunities/biocompatible-and-biodegradable-resins>, or contact the team directly.

### References

1. Jonathan Field, John W. Haycock, Fiona M. Boissonade, Frederik Claeysens(2021) ,  
<https://www.mdpi.com/1420-3049/26/5/1199>, MDPI, 26, 1199
2. Betül Aldemir Dikici, Min-Chia Chen, Serkan Dikici, Hsien-Chung Chiu, Frederik Claeysens\*(2023) ,  
<https://www.sciencedirect.com/science/article/pii/S259004982300070X?via%3Dihub>,  
BIOLOGICAL AND MEDICAL APPLICATIONS OF MATERIALS AND INTERFACES, 15, 23