



Company: FormFormForm

Knowledge Transfer Partnership: Developing formulations of silicone composites for scaling-up manufacturing processes.

FormFormForm is a materials company based in Hackney, East London, whose primary product is Sugru mouldable glue, used for a variety of DIY applications. FormFormForm identified a knowledge gap, which prevented development of the next generation of Sugru. Queen Mary placed a Knowledge Transfer Partnership (KTP) Associate with the company to offer expertise in the development and testing of silicone-based polymers, composites and putties.

Challenge

FormFormForm needed the new iteration of Sugru to cure more quickly and to be family friendly. It hoped to be able to scale production and to open up new markets for its product. FormFormForm collaborated with Prof Julien Gautrot who is an expert in the synthesis and characterisation of biomaterials. His research group has a strong interest in the chemistry of bio- and silicone-based polymers and the characterisation of their physical and mechanical properties.

Results

The Knowledge Transfer Partnership (KTP) allowed the optimisation of stable cure chemistry and the quantification

of Sugru performance during accelerated ageing studies. Overall the project delivered huge advances in the development of:

- New silicone chemistries with ultra-fast cure-rates
- A new family-safe version of Sugru
- Scalability
- Conductive photo-curable materials

These innovations have given the company access to new markets (toys, food packaging, and industrial silicone coatings) which are forecasted to grow the company's turnover by £2 million three years post KTP.

These outputs were celebrated at the KTP Best of the Best Awards 2020, where

the KTP Associate Khai Nguyen was recognised with the Future Innovator Award.



Highly recommended – The Knowledge Transfer Partnership has allowed FormFormForm to collaborate with a very talented PhD graduate and the project has led to new process improvements and increased market opportunities”.



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Collaborate with us

