

Morgan Advanced Ceramics: Regulation and Resource in Research

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In a global world of increasing sensitivity to the health and safety impact of materials, regulation has become a key driver for innovation for Morgan Advanced Materials. From the alternatives sought for opacifiers in microporous products and tar pitch in carbon products to low biopersistence initiatives in ceramic fibre, researchers aim to win in the trade-off between performance and compliance. World-wide, there is a trend to extend research resources through modelling and prediction from resource-intensive experimental work. Morgan's Thermal Products Division is using high resolution computed tomography to generate sophisticated simulations of real-world novel materials in order to 'play' variable operating condition scenarios against these computer renditions. Iteration will allow predictions on material behaviour in service and prediction of material service life – a hopefully timely response to heavy industry customers who require ever more bespoke technical datasheets as refractory and insulation players move from being commodity providers to solution providers.