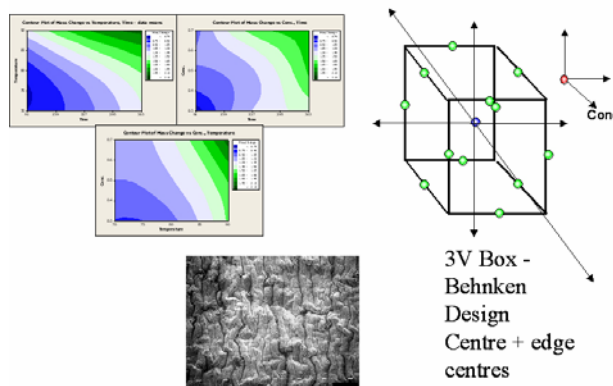


ARTIS Presentation Practical use of Thermal Methods for Problem Solving

The Presentation will look at the combined use of TGA and DMTA and other analytical techniques, to look at changes in elastomeric materials that occur as a result of contact with cleaning chemicals used in dairy applications. The rubber compounds used in milking parlour equipment undergo significant chemical and physical changes as a result of the contact with the milk and with the cleaning regimes used on farm.

Liner ageing study



This work looks at the characterisation of these changes using TGA and IR to evaluate the chemical changes taking place and the use of the DMA to examine the mechanical effects.

Controlled experimentation to study the effects of various cleaning chemicals allows the identification of “cleaning abuse” as a cause of liner failure and also predicts the effect of changes in the cleaning regime. Use of TGA and IR analysis of the aged liners allows the identification of possible mechanisms involved and selection of the correct application for the individual chemicals.

The combination of these techniques yields a unique insight to the mechanisms of ageing during the life of a milk liner on the farm.

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