The Institute of Materials, Minerals & Mining

Dinner Lecture

MPRG
Midlands Plastics and Rubber Group

"Structural Foams for Composites"

Speaker:

Bob Wakefield

6.30pm for 7pm
Monday 19th January 2009

at the

St Johns Hotel,
651, Warwick Road, Solihull, B91 1AT

Due to their excellent strength- and stiffness-to-weight ratio, sandwich structures are widely used in aerospace, marine and railcar applications. Typically a sandwich panel consists of an upper and a lower face sheet and a thick and lightweight core material bonded in between. The stiff and strong face sheets carry the in-plane stresses, while the core is used to carry the shear stresses caused by transverse loads. A sandwich structure is particularly suitable for carrying bending and in-plane compression loads. Sandwich structures are optimal for realizing weight optimised constructions. Additionally they offer a high potential for the integration of additional functions such as thermal and acoustic insulation. Closed cell rigid foams also have high heat distortion temperatures, net shape 3D formability and compatibility with many thermoplastics leading to a wide variety of applications. Initially used in the aircraft industry, in structures such as radomes, landing gear, antennas and satellite launch vehicles. Rigid foams are now used in vehicle construction, railcar manufacturing, ship building and communication technology as well as sports equipment and X-ray tables.

Bob Wakefield, Regional Manager for Evonik Degussa International AG, has spent many years working in the structural composites and transport industries and in this technical talk will describe the processing routes as well as material properties for the various applications.

2-course meal (subsidised by MPRG) Directions will be sent upon registration. Non-members welcome.

I wish to register for this event and enclose a cheque for £15.00 payable to MPRG

Name…….. Email:…….

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