Acknowledgements

I would first of all like to thank my supervisors, Prof Pethrick and Dr John Liggat for all their help and enthusiasm over the last 4 years; I really couldn't have finished my thesis without all their support!

I would also like to thank Dr I Rhoney, Dr A Mackintosh, Dr J Daly and Mr J Carruthers for all their technical support over the years. I would especially like to thank Dr D Hayward, without whom any practical work would have been near impossible! I would like to thank Jim Morrow and Dr N Hudson for all the rheological help. I would also like to thank Nick for all his help with the corrections of this thesis; he must know it almost as well as I do by now!

I would like to express my gratitude to Cytec Engineered Materials and EPSRC for funding my PhD. Steve Ward and Mark Harriman at Cytec were always very helpful with technical queries.

I would like to thank all the students of TG315 who made the last 4 years so fantastic!

Finally, I would like to thank my family for all their support, even though they never quite knew what exactly I was working on....