

Reprints

Reprints of all articles in this journal are available in quantities of 100 or more

Reprints are essential—

- for the company that wants to distribute impartial comment on its activities to potential customers and clients
- for the company that wants to up-date its technical staff on new techniques and new technologies
- for the company that wants to publicize its research and development work
- for the training course organizer who wants to assemble key reading material for his students
- for the university or technical college lecturer who wants to distribute the latest information on a topic under study

For full details of prices and availability of reprints, please write to

**The Reprint Department
Butterworth Scientific Limited
PO Box 63 Westbury House Bury Street
Guildford Surrey GU2 5BH England**

Erratum

'Amorphous polyurethane—polyether blends'

M. M. Coleman, J. Hu, Y. Park and P. C. Painter

Polymer 1988, 29, 1659–1663

We wish to correct a discrepancy that appeared in our recent paper. The expression for ΔG_H (eq. (4)) contains a factor s_B , the number of segments in a chemical repeat unit of an amorphous polyurethane (APU), that is determined by defining the lattice cell size to be equal to the 'interacting unit' (assumed equal to the -CONH-urethane group). When the expression for ΔG_H is included in the overall free energy of mixing (eq. (3)), then the χ term must also be determined in terms of this same reference volume. This we failed to do. Simply eliminating s_B from equation (4) rectifies the situation. Now a consistent reference volume, V_B , the molar volume of the APU average chemical repeat unit, is employed throughout. (For further details see references 1 and 2.) It is entirely

appropriate to consider χ as an adjustable parameter, but as we have shown³ initial estimates may be obtained from solubility parameters. Using an identical procedure to that employed to calculate the solubility parameter of poly(vinyl phenol)³, a revised value of $\delta_B=10.8$ was estimated for APU. Recalculating the phase diagrams for the APU blends with PEO, EPO and PVME gave the same *trends* as those displayed in our original paper—i.e. the PEO blend is predicted to be miscible over a significant temperature range; the PVME blend is essentially immiscible and the EPO blend is an intermediate, partially miscible, system.

- 1 Painter, P. C., Park, Y. and Coleman, M. M. *Macromolecules* in press
- 2 Painter, P. C., Park, Y. and Coleman, M. M. *Macromolecules* in press
- 3 Coleman, M. M., Lichkus, A. M., Serman, C. J. and Painter, P. C. *Macromolecules* in press