Erratum

'Amorphous polyurethane—polyether blends'

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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 -OCONH- 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 shown[3] 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