

Developments in Chemical Engineering & Mineral Processing

The Australasian Research Journal

Volume 12, Numbers 1/2, 2004 ISSN 0969-1855

***Special Theme Issue: Polymer Processing Research at
The Queen's University of Belfast, Northern Ireland***

- 3 Editorial: *Gerard M. McNally, Polymer Processing Research Centre,
The Queens University of Belfast, Northern Ireland, UK*
- 5 The Characteristics of Polyethylene Film for Stretch and Cling Film
Applications *C.M. Small, G.M. McNally, G. Garrett, and W.R. Murphy*
- 21 The Effect of Orientation on Extrusion Cast Metallocene Polyethylenes and the
Role of Processing Conditions in the Die Swell of Metallocene and
Conventional Polyethylenes
B.G. Millar, P. Laughlin, W.R. Murphy and G.M. McNally
- 37 The Processing and Performance of PVC Blends
D.C. McConnell, G.M. McNally and W.R. Murphy
- 53 Blown Film Processing Characteristics of Metallocene and Conventional
Polyethylenes *A.D. Johnston, G.M. McNally, A.H. Clarke, and W.R. Murphy*
- 67 The Effect of Co-monomer Type on the Mechanical and Thermal Properties of
Metallocene and Conventional LLDPEs
S. Walker, G.M. McNally and P.J. Martin
- 77 The Effect of Compatibilisation for Blends of Nylon 6 or Polybutylene
Terephthalate (PBT) with Metallocene Linear Low-Density Polyethylenes
F. Gribben, G.M. McNally, A. H. Clarke, W.R. Murphy, T. McNally
- 91 Effect of Phthalocyanine Blue Pigment on Mechanical and Thermal Properties
of Polypropylene Copolymers
I.F.M. Major, G.M. McNally, A. Clarke and H. Ross
- 107 Fluid Flow through 90 Degree Bends
P.L. Spedding, E. Benard and G.M. McNally
- 129 Effect of Coupling Agents and Weathering on the Mechanical Properties of
Wood-Polymer Composites
P. Douglas, W.R. Murphy, M. Billham and G.M. McNally
- 141 The Use of Aqueous-based Emulsion Polymers As Moisture Barrier Coatings
for Carton Boards *N.M. Ryan, G.M. McNally, and J. Welsh*
- 149 Exfoliation Kinetics of a Phyllosilicate-Organoclay Structure in a Polymer Matrix
during Melt-Extrusion Process
C.Y. Lew, W.R. Murphy and G.M. McNally

- 159 Diffusion of Methanol, Ethanol and Toluene in Nylon 12 and Poly(butylene terephthalate)
M.P. McCourt, G.M. McNally, A.C. Ruddy and W.R. Murphy
- 169 The Effect of Rapid High Temperature Excursions on the Moisture Absorption and Dynamic Mechanical Properties of Carbon Fibre Epoxy Composite Materials
G.M. McNally, M.P. McCourt and P.L. Spedding

General Papers

- 179 Momentum Balance for Two-Phase Horizontal Pipe Flow. Part 1: Friction Factors
P.L. Spedding, J.S. Cole and G.F. Donnelly
- 189 Momentum Balance for Two-Phase Horizontal Pipe Flow. Part 2: Testing of Models
P.L. Spedding, J.S. Cole and G.F. Donnelly
- 199 Stabilization of the Dynamic Behavior of a UNIPOL Process for Polyethylene Production
N.M. Ghasem and M.A. Hussain
- 217 Production Variance in Purified Carboxymethyl Cellulose (CMC) Manufacture
V. Stigsson, D.I. Wilson and U. Germgård
- 232 ***Forthcoming Special Theme Issues***