

TECHNICAL NOTES

ADDITIVES SURVEY

The July, 1987 issue of "Plastics Technology" contains a comprehensive survey of the additives sector in 1987, and covers new developments, materials, and relevant end-uses in relation to heat stabilizers, fire retardants, lubricants and processing aids, plasticizers, colourants, antioxidants, U.V. stabilizers, blowing agents, impact modifiers, antistatic and conductive agents, and fillers.

IMPACT MODIFIER FOR POLYCARBONATE AND POLYARYLATE

The new thermoplastic polyester (poly-p-methylene benzoate) from Amoco Chemicals gives clear, miscible blends in all proportions with polycarbonate and polyarylate. 50:50 blends give "no break" notched Izod properties. The commercial price is likely to be between those of PET and polycarbonate. The polyester is based entirely on terephthalic acid.

BIODEGRADABLE PLASTICS

A new method for making biodegradable plastics has been developed at Purdue University in the U.S. which involves combining petroleum - based polymers with cellulose or starch. These natural polymers and, for example, polystyrene are not normally compatible but this method employs a starch-polystyrene graft copolymer that acts as an interfacial agent.

PROCESS FOR MANUFACTURING PIGMENTS

Relatively nonpolluting technology to make a pigment related to ultramarine (Pigment Blue 29) has been developed at Georgia Institute of Technology. It comprises coating a zeolite of proper particle size with sulphur and firing it. Though small amounts of sulphur dioxide are generated, the amount is much less than with the traditional process of firing a mixture of kaolin, soda ash, sulphur, and charcoal. The firing temperature in the new process also is lower, resulting in significant savings in energy costs. The product colour is identical to that of ultramarine, but the range of elemental composition is wider than the $\text{Na}_7\text{Al}_6\text{Si}_6\text{O}_{24}\text{S}_3$ of ultramarine. X-ray powder patterns indicate the pigment has a different, unknown crystal structure. Ultramarine produced by the new process could find use in food, cosmetics, inks, rubber, plastics, paints, and soaps.

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