

Treatment of Plastics in Machine Construction. [Russian] G. M. Bartenev, ed. Nauka, Moscow, 1968. 128 pp. Rubles 0.52.

This slim booklet contains an introduction and nine rather heterogeneous papers. Four of these (by Rebinder, Bartenev, Kragelskii et al., and Volarovich and Bayuk) are of a general nature and deal with the physico-chemical mechanics of the shaping of plastics, with the theory of their brittle fracture (17 pages), with the properties necessary to reduce wear, and with the utilization of supersonic vibrations to determine the elastic properties of polymeric materials. The others are devoted to applications, namely to (1) preparation of parts from nylon-6 by anionic polymerization, (2) thin polymer coatings as friction depressors, (3) mechanical treatment of glass-reinforced plastics, (4) manufacture of friction plastics (20 pages, the longest paper in the collection), and (5) mechanical shaping of polyethylene, poly(tetrafluoroethylene) and so on.

The reviewer could not find any explanation of why these articles were published as a pamphlet; they surely are less of a *book* than any issue of the Journal of Applied Polymer Science. On the other hand, some of the contributions are quite valuable. If they will be published again in journals regularly abstracted outside Russia, then the publication under review may simply be forgotten without any damage to science or engineering. If no reprinting is contemplated, the articles should be digested (for instance, by *Chemical Abstracts*) and made available, at least in a condensed form, to those interested in the mechanics of plastics.

J. J. Bikerman

Horizons Inc.
Cleveland, Ohio 44104