PVC Pipe and Fittings meet NSF Standards for Drain, Waste & Vent use

New white PVC pipe and fittings have been introduced by Evanite Plastic Company, a unit of U.S.I. The new parts meet requirements of the National Sanitation Foundation for Drain, Waste and Vent (DWV) use.

They resist attack by chemicals, sunlight, soil and bacteria. Strong enough to withstand high pressure at elevated temperature, they are smooth surfaced, lightweight and self-extinguishing.

Brighter looking plants are on the way.

For further details, write to U.S.I., specifying No. 2400.

New Seamless Finish Uses Colored Vinyl Chips

A decorative finish for floors, walls and tables uses vinyl chips embedded in moisture-cured urethane.

According to the manufacturer, the finish can be applied over wood, concrete, stone, brick, tile and linoleum. Twenty colors permit a variety of designs and effects. For details, write to U.S.I., specifying No. 2401.

This correlation can be of great value in formulating resins. Impact resistance, environmental stress crack resistance and other properties can be predicted from molecular weight data. In effect, the technique leads to greater understanding of the structure/property relationship of polymers.

Traditionally, melt index or other indirect measures have been used to determine polymer molecular weight. For low-density polyethylene, however, melt index is shown to be inadequate for this purpose—there is poor structural dependence.

The new technique employs an automatic membrane osmometer. This instrument operates effectively and rapidly at the elevated temperatures necessary for the dissolution of polyethylenes.

U.S.I. supplies Petrothene® polyethylene in low-density and high-density grades for all applications.

For a copy of a report on the osmometric technique, and on the relationship of number-average molecular weight to polyethylene properties, write to U.S.I., specifying No. 2402.
Ultrasonic Energy Reduces Size of Suspended Particles

Sound waves at a frequency of 100 kc significantly reduce the size of particles in suspension.

This effect may prove useful in formulating pharmaceuticals. Reduced particle size generally tends to make suspensions more stable.

Experimental work, as reported in the Journal of Pharmaceutical Sciences, Vol. 55, No. 10, page 1048, used Microthene® powdered polyethylene as the suspended material. Microthene suspensions between 0.5% and 4.0% were tested. Various surfactants were also added. Test samples were subjected to 100 kc sound waves.

Mean diameter of the particles ranged between 5 and 10 microns. Significant reductions in size occurred on exposure to the sound waves for up to 2 hours. After that time, a size plateau was reached.

Small concentrations of surfactants promoted particle size reduction. Low-concentration Microthene suspensions (0.5%) were much more subject to particle size reduction than high-concentration suspensions (4.0%).

Aerosol Notes:

Human Skin Similar To Polyethylene Film In Hydrophobic Properties

Researchers at a leading manufacturer of skin cleansing products have found that the human skin is remarkably like polyethylene film in one respect: the surfaces of both are highly hydrophobic (difficult to wet).

The method of determining this skin property quantitatively involves measurement of contact angles of water droplets. The research is expected to be of value in the development of new products for the cosmetic and toiletry market.

Seamless Aerosol Cans Printed in Full Color

Seamless aerosol cans can now be printed using four-color process. This is the same process that is used for overwrap and advertisement printing.

Before separation and plates were developed specially for this type of package, seamless aerosol cans could be color printed only by using straight line work.

Technical Developments

Seatless sampling valve is designed for installation on bottom or at stage levels of process tanks, or on underside of process piping. Plunger-type valve is described as self-cleaning. No. 2403

Biochemicals—nutrients, reagents, ion exchange materials, gels and adsorbents, C-14 radiobiochemicals—are described in new, 76-page catalog. Lab equipment is included. No. 2404

Electrophoresis scanner reads absorbed dye intensity of clear electrophoretic separations. Unit features filter slide, with three easy-to-reach built-in filters. Operator simply opens slide access door to get filter holder. No. 2405

For more information on the U.S.I. products or other items in this issue, write: U.S.I., 99 Park Ave., New York, N.Y. 10016. Please use the identifying number when writing.

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