

the increased demands, production was started in this country in 1944.

After the war more and more uses were found for polyethylene. Now the packaging industry must vie for its share of polyethylene flake production against high frequency electrical insulation, squeeze bottles, molded products, water pipe and a host of other interesting applications.

WHAT IS POLYETHYLENE

Polyethylene is the name given one group of thermoplastics. The polyethylenes are hydro-carbon resins resulting from the polymerization of ethylene. Under extreme high pressures, liquid ethylene, a petroleum product, forms into waxy flakes or polyethylene resins. Polyethylene is

produced in film form by extrusion through the use of heat and pressure alone. The outstanding qualities of polyethylene include flexibility and toughness over a wide range of temperatures, unusually good resistance to water and penetration by moisture, resistance to chemical action, and unique electrical properties. It is one of the lightest of all plastics.

HOW IT IS MADE

Practically all of the polyethylene film made in the United States is produced by means of a hot melt thermo-plastic extruder which consists of an electrically-heated cylinder within which there is a revolving screw to generate pressure and advance the melted resin through the cylinder and die.



Above left: Joe Heatherly checks and records the weight of a finished roll of polyethylene film.

Above right: Joe Heatherly (foreground) and Ray Holcombe remove rolls of polyethylene film from the extruder wind-up.

Left: Polyethylene resin is received in 50 pounds bags and stored near the production machines.