

## **ENGINEERING PLASTICS**

Some of the more common plastics which are used in H. S. Martin products include:

**Polytetrafluoroethylene** (PTFE) is commonly known by its trade name Teflon. ® PTFE is a fluorocarbon resin which has been used in industrial, government and commercial application for over thirty years. A high melting point, and excellent thermal, electrical, and chemical properties are unmatched by any other material. PTFE is the most chemically inert of any material known. The only chemicals which can effect PTFE are molten alkali metals and certain halogenated chemicals at high temperatures and pressures.

**Acetal** is commonly known by its trade name, Delrin. ® Acetal is a thermoplastic polymer manufactured by the polymerization of formaldehyde. Acetal's dynamic and static coefficients of friction remain virtually unchanged throughout a wide range of temperatures, surface speeds and bearing loads.

**Rulon** is PTFE based with proprietary fillers. ® Rulon is almost completely chemically inert and has a continuous operating temperature of 550°F. It is an excellent bearing material with higher compression resistance and more wear resistance than PTFE.

**Ultra High Molecular weight Polyethylene** (UHMW) superficially resembles other polyethylene, but has superior physical and mechanical strength. UHMW is more abrasion than AR steel, and is more chemically resistant than stainless steel. UHMW will not encourage the growth of bacteria or fungus and is self-lubricating.