

## Aviation and Aerospace Products

---



### **Kirkhill Rubber-TA Mfg. Team: One of the Largest and Most Experienced Aerospace Engineered Elastomer Product Sources**

Since the initial applications of synthetic elastomers as substitutes for natural rubber Kirkhill-TA scientists, engineers, and manufacturing experts have assisted aerospace customers in developing new elastomer compounds that meet the challenges posed by the ever increasing performance of aviation and space vehicles. That's why today, the Kirkhill-TA team's engineered, high performance elastomer products can be found on virtually every current commercial, military and business aircraft as well as missiles, space launchers and satellites. Aerospace OEM's and subcontractors count on Kirkhill-TA's experienced and innovative elastomer formulation, product design, prototyping, and lean manufacturing capability to provide cost effective solutions for a wide variety of applications including:

- ▶ Rocket motor insulation
- ▶ High temperature ducting
- ▶ Mechanical and inflatable rubber seals
- ▶ Plastic extrusions
- ▶ Calendered sheet rubber
- ▶ Pyrotechnic shock materials
- ▶ Radar absorbing materials
- ▶ Antenna gaskets
- ▶ Clamping devices
- ▶ Line blocks, Grommets
- ▶ Fire barrier materials

## High Temperature Ducts

- ▶ Silicone, Neoprene®, nitrile, conductive materials, Viton® & fluorosilicone fiberglass, Nomex, Dacron®, Nylon, cotton, Kevlar®, ceramic, reinforced fabrics
- ▶ Reinforced plastics: Polyester, phenolic & polyamide
- ▶ Flexible & rigid sections, metal flanges, inner & outer rings, end fittings, zippers/Velcro®
- ▶ Kirkhill/TA experienced staff provides design recommendations, engineering support and material selection assistance

## Mechanical Seals

- ▶ Reinforced with fabric, fiberglass, wire & metal
- ▶ Silicone, Fluorosilicone, Viton, Neoprene®, Nitrile & Natural Rubber
- ▶ Firewall Seals – 2,000°F, flame 15 minutes including Fastblock and Extreme Heat products from TA Mfg., Co.
- ▶ Teflon® cover – low friction surface
- ▶ Long lengths in a variety of seals – spliced reinforced seals, bulb & lip, tadpole seals, center bulb seals, flat seals, double bulb seals, lip seals, double lip seals, compact lip seals

## Inflatable Seals

- ▶ Expands through internal pressure to seal
- ▶ Provides reliable seal in extreme variations of sealing surface contour
- ▶ Silicone, Neoprene®, Natural Rubber, Cotton, Dacron®, Nylon Reinforced
- ▶ Custom made to you specifications

## Plastic Extrusion

- ▶ ABS, PVC, Polyethylene, Styrene, Thermoplastic Elastomers
- ▶ Multi-colored sections & custom colors
- ▶ Wire or cord inserted profiles, co-extruded materials
- ▶ High & low production
- ▶ Close tolerance, up to 12" wide
- ▶ Extrusions available in a wide variety of Thermoplastic Elastomers, including Elast-O-Lene®, 35 shore A to 50 shore D
- ▶ In-house engineering, laboratory and design assistance
- ▶ On-site extrusion, die and development capabilities
- ▶ Decorative finishes - pressure sensitive adhesive backing
- ▶ Custom fabrication capabilities -- cutting, forming, stamping, drilling and embossing

## Calendered Sheet Rubber

- ▶ .015 - .375 thicknesses, widths to 58"
- ▶ Smooth or fabric finish
- ▶ Cloth inserts & laminated two-polymer sheets
- ▶ All polymers, calendered sponge
- ▶ Modern mixing to meet critical requirements
- ▶ Neoprene®, Butyl, EPDM, Epichlorohydrin, Fluoroelastomers, Viton®, Fluorosilicone, Silicone, Natural Rubber, Nitrile®, Polybutadiene, Polynorbornene, and SBR

Contact Kirkhill/TA today and put one of the world's most experienced and capable aerospace engineered elastomer design and manufacturing teams to work for you. By partnering with Kirkhill/TA early in the design cycle you'll save time and money.

Viton is a Registered Trademark of E.I. DuPont de Nemours & Co.