

**WAC 296-17A-3513 Classification 3513.**

**3513-00 Rubber goods, N.O.C.: Manufacturing**

Applies to establishments engaged in manufacturing rubber goods not covered by another classification (N.O.C.) from natural or synthetic rubber which may be hard, soft, or liquid. Products manufactured in this classification include a wide variety of items such as, but not limited to, gaskets, seals, floor tiles, O-rings, hoses, belts, rubber bands, foam rubber cushions or pads, sponge rubber novelties, shoe parts, floor mats, interior pieces for computer circuit boards, and latex rubber goods such as gloves. Establishments in this classification also mix and compound rubber for sale to tire dealers that recap or retread tires. This classification includes establishments that manufacture rubber tires, or that shred used tires or other rubber products. Used rubber is run through granulators or rotary shearers that shred it to small pieces. Shredded material can be used as filler for asphalt for running tracks, or mixed with coal for fuel in industrial plants or further processed into oil. This classification also includes establishments that use heavy machinery to cut used tires into large pieces which are then formed into bumpers for boats, loading docks or similar items. Manufacturing processes include washing, mixing, rolling, extruding, calendaring, molding, and curing, all of which cause chemical reactions to the rubber until it reaches the desired "property or state." Vulcanization, which improves the strength, resiliency and odor of rubber by combining it with sulfur or other additives in the presence of heat and pressure, occurs in various stages of manufacturing processes. Machinery includes but is not limited to: *Shearer*: Cuts bulk rubber into strips or chunks. *Extruder*: Mixes and heats pieces of rubber to high temperature, then forces the mixture out through dies, forming it into "ropes." O-rings are made with extruded ropes.) *Rubber mill*: Has two heavy rollers (each about 1 foot diameter) that spin towards each other; the friction of the spinning rollers causes heat. Strips of raw rubber and dry chemicals are fed into the rollers where they are mashed and pressed, forming it into different grades or densities. The rubber emerges from the mill in flat, pliable strips, ready for further treatments. *Calendar*: Passes rubber through more rollers which work it to a smooth, even, glossy finish. *Hydraulic steam press*: There are several types of molding which involve placing strips of the rubber after it has been milled and rolled into cast iron molds. The molds are inserted into a press where heat and pressure are applied until the rubber is molded to desired shape, then removed and cooled. *Injection mold press*: Rubber is shot into the cavity of the molds, and the press heats it to an almost liquid form, then it becomes stable. A vacuum pump sucks air from the molds to form the product. *Deflasher machine*: Resembles a clothes dryer with a basket inside; used to remove flashing (the excess rubber that has squeezed out of the mold during forming). Molded items are placed in the basket; nylon pellets are added to the machine. As the machine spins, the pellets beat the flashing from the molded pieces. Flashing is sometimes trimmed by hand with exacto knives or smoothed on grinders. *Curing oven*: The final step for most processes which dries and sets the rubber. Establishments subject to this classification may also make some products by cutting and gluing premanufactured materials. If any rubber molding is performed, the entire operation is to be covered under this classification.

This classification excludes establishments engaged in the manufacture of rubber goods by cutting and gluing premanufactured rubber

or composite sheets (*no molding*) which are to be reported separately in classification 3802; tire dump operations which are to be reported separately in classification 4305; and the manufacture of synthetic rubber and the "advanced recycling" of shredded tires or rubber which is to be reported separately in classification 3407.

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