

## Duct Tape Update

By now, most people know that regular hardware store duct tape is good for almost anything but ducts. Duct tape has been used to make makeshift tow-chains to pull vehicles from ditches, and for various emergency repairs on Apollo space missions. When used on ducts, though, generic cloth duct tape fails when the heat dries out the adhesive.

Perhaps you're wondering, then, "Why isn't there any industry standard for duct tape?" It turns out that there is one — at least for duct tape used on flex duct and fiberglass duct.

and pressure-sensitive tape. In general, heat-activated tapes, which are sealed with a tool called a heat seal iron, perform better than pressure-sensitive tapes.

According to the UL website, "The Standard requires that duct tape pass a series of tests, including evaluations of tensile strength; peel adhesion strength; shear adhesion strength under a variety of weights, temperatures and humidity levels; long-term high-temperature effects; and surface burning characteristics. UL also evaluates the tape for its ability to inhibit fungi from growing."



Generic gray duct tape fails quickly when used to seal ducts (left). Aluminum duct tape meeting UL 181 specifications (above), unlike most cloth duct tape, is tested for adhesion strength under a variety of temperatures and humidity levels.

Underwriters Laboratories reports on its website ([www.ul.com/about/otm/otmv3n1/duct.html](http://www.ul.com/about/otm/otmv3n1/duct.html)) that UL first published a standard for duct tape in October 1995. The standard, UL 181B, is called "Standard for Safety for Closure Systems for Use with Flexible Air Ducts and Air Connectors," and covers duct tape for use on flex duct. Another standard, UL 181A, "Standard for Safety for Closure Systems for Use with Rigid Air Ducts and Air Connectors," covers duct tape for use with rigid fiberglass duct (duct board). There are two types of UL 181A tape: heat-activated tape

If you want a duct tape that actually works on ducts, look for the UL 181 designation, which should be printed every 6 inches on the tape. These UL 181 duct tapes are backed with aluminum foil, so they don't look like old-fashioned gray duct tape.

For sealing sheet-metal duct, rather than flex duct or fiberglass duct, use mastic, not tape. No standard exists for duct tape used on sheet-metal duct.

— Martin Holladay