

Seaming Irons and Tapes

In the installation of carpet, there are many factors that can affect the outcome of the job. Questions must be asked regarding floor plan, measurements, carpet style, pad or adhesive type, carpet and pad seam locations, pattern match, and transition needs.

One of the most potentially problematic areas an installer has to address pertains to the carpet seam. Seams can have numerous problems included, but not limited to gapped seams, seam peaking, caused by overstretch across the seam or by excessive seam iron temperature, cut tufts and nicked yarn bundles that will fray, seam tape telegraphing, seam discoloration due to the use of a heat reflective seam weight, fraying, raveling and delamination caused by improperly sealed seams. In this newsletter we will examine the various types of carpet seaming irons available on the market today.

Seaming irons fall into two basic categories, hot melt and radio frequency. Hot melt seam irons work by radiant heat that heats a coil inside a coated housing through a thermostat control. The approximate heat range of hot melt seam irons is from 190-420 degrees Fahrenheit. The thermostat control ranges from 1-4, the approximate temperature on the various settings are, 1-190 degrees, 2-280 degrees, 3-360 degrees, 4-420 degrees Fahrenheit. Most, if not all hot melt seam irons on the market today are equipped with an upper heat shield that helps keep the direct iron heat from transferring up into the carpet's backing. The price range for this type seam iron is from \$59.00 to \$220.00.

Thermoplastic seam tapes used with hot melt seaming irons generally requires a temperature of 215 degrees Fahrenheit to melt the seam tape adhesive and allow it to transfer to the carpets secondary backing. To achieve this temperature, the seam iron thermostat setting will range between 2.5-3.0. Some thermoplastic tape, commonly known as low profile tape, is designed to melt at a lower seam iron temperature, generally between 180-185 degrees Fahrenheit. The iron thermostat setting for this type tape will be between 1.0-1.5. Some hot melt seam irons can reach temperatures up to 460 degrees. While this extremely high temperature will melt the seam tape adhesive at a faster rate it will burn the seam tape paper and, distort the backing of the carpet, and damage pile yarns at the seam juncture.

The second type seam iron is the Kool Glide iron. This seaming iron works off of Radio Frequency. The Kool Glide iron does require the use of its own special seaming tape that has a reflective backing which causes the radio waves to heat up and melt thermoplastic adhesive. The adhesive on the Kool Glide tape is a very low profile adhesive that melts at 180-185 degrees Fahrenheit. on the low setting

One advantage to the Kool Glide iron over a conventional iron is the precise temperature that it emits. The Kool Glide iron is equipped with micro processors that detect the exact distance between the iron and the reflective tape, and they will only heat the seam tape adhesive to a maximum temperature of 240 degrees Fahrenheit. on the low setting. This is another key feature of the Kool Glide seam iron since

Polypropylene backings are heat sensitive and will curl and shrink as much as 2% at temperatures above 280 degrees Fahrenheit. If the carpet edges are sealed with the Kool Glide Thermoplastic seam sealer; as the seam is put together the seam sealer will melt again and bond the two seam edges together virtually eliminating the chance of seam hinging associated with peaking. The Kool Glide is also ideal for repairs. Unlike conventional seam irons, repairs to the seam can be done entirely from the face of a carpet. No additional seam tape is required because the adhesive can be re-melted. The cost of this system is around 370.00 dollars and has its own specified tape system.

Every tool of our trade has its own characteristics; each has a place where you will use it. The most important issue with any tool is having the knowledge of how to use them properly.

Greg Raborn