<table>
<thead>
<tr>
<th>Color</th>
<th>Cause of Stain</th>
<th>What to do</th>
</tr>
</thead>
</table>
| Orange-Brown to Reddish stain (looks like rust) | Do eraser test, if stain rubs off and no pitting exists, problem is most likely from:  
  - Detergent residue on towels or High Alkaline >8 pH detergent is being used leaving a phosphate surface deposit  
  - Dried blood  
  - Iodine or Betadine residue |  
  - Change to Neutral pH detergent. Recommend Miltex Surgical Instrument Cleaner.  
  - Check pH of towels with litmus to verify if detergent residues are present.  
  - Rinse the instruments in warm water for at least 30 seconds  
  - Use a stain remover on both the instruments and autoclaves  
  - If problem persists, consider changing to distilled or demineralized water. Particularly if local water supply is high in Iron or other minerals. |
| Black, Brown & Pitting        | Subjected to an Acidic Low <6 pH substance such as:  
  - Low pH detergent residues on instrument surface or from towels  
  - Exposed to other chemical compounds from “cold soaking”  
  - Exposure to Bleach |  
  - Change to Neutral pH detergent. Recommend Miltex Surgical Instrument Cleaner.  
  - Check pH of towels with litmus to verify if detergent residues are present.  
  - Eliminate exposure to chemicals or bleach  
  - Rinse thoroughly and consider using distilled or demineralized water. Particularly if local water supply is high in Iron or other minerals.  
  - Use stain remover on both the instruments and autoclaves  
  - Eliminate any use of bleach.  
  - If pitting remains, send instrument back to manufacturer for evaluation.  |
| Rainbow or Multi-Color        | Heat compromised, tensile strength is compromised                             |  
  - Check the autoclave for proper temperature |
| Bluish-Green Bluish-Black     | Cross contamination between dissimilar metals                               |  
  - Separate instruments by type before cleaning or autoclaving |
| Bluish-Gray (w/possible pitting)  | Improper preparation of cold sterilization solutions                        |  
  - Follow solution manufacturer’s directions closely, particularly temp. & soak times.  
  - Use distilled or demineralized water  
  - Change solution per mfg’s instructions |
| Rust                          | Sterilizing instruments of dissimilar metals in the same cycle.  
  - Chemicals in detergents or excess amounts of Iron or other minerals from local water supply.  
  - New Instruments may be slightly magnetized during the manufacturing process. |  
  - Separate instruments by metal types prior to sterilization.  
  - Use neutral pH detergents and change to distilled or demineralized water. Particularly if local water supply is known to contain Iron or other minerals.  
  - Wipe off as much residue leaving shiny metal underneath. Use a stain remover on both the instruments and autoclaves.  
  - After several autoclaving sequences, the instruments lose their magnetic property |
| Spotting Light or Dark colored | Slow evaporation of water drops with mineral content  
  - Instrument wraps & towels may contain detergent residue. |  
  - Eliminate water droplets and moisture by adhering to autoclave manufacturer’s operating instructions.  
  - Use Miltex Stain Remover on both the instruments and autoclaves  
  - Change to distilled or demineralized water. Particularly if local water supply is known to contain Iron or other minerals.  
  - Thoroughly wash & rinse wraps & towels with a neutral pH detergent. |