

Instrument Stains

Color	Cause of Stain	What to do
Orange-Brown to Reddish stain (looks like rust)	<p>Do eraser test, if stain rubs off and no pitting exists, problem is most likely from:</p> <ul style="list-style-type: none"> • Detergent residue on towels or High Alkaline >8 pH detergent is being used leaving a phosphate surface deposit • Dried blood • Iodine or Betadine residue 	<ul style="list-style-type: none"> • 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	<p>Subjected to an Acidic Low <6 pH substance such as:</p> <ul style="list-style-type: none"> • Low pH detergent residues on instrument surface or from towels • Exposed to other chemical compounds from “cold soaking” • Exposure to Bleach 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Heat compromised, tensile strength is compromised 	<ul style="list-style-type: none"> • Check the autoclave for proper temperature
Bluish-Green Bluish-Black	<ul style="list-style-type: none"> • Cross contamination between dissimilar metals 	<ul style="list-style-type: none"> • Separate instruments by type before cleaning or autoclaving
Bluish-Gray (w/possible pitting)	<ul style="list-style-type: none"> • Improper preparation of cold sterilization solutions 	<ul style="list-style-type: none"> • Follow solution manufacturer’s directions closely, particularly temp. & soak times. • Use distilled or demineralized water • Change solution per mfg’s instructions
Rust	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Slow evaporation of water drops with mineral content • Instrument wraps & towels may contain detergent residue. 	<ul style="list-style-type: none"> • 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.