Substrate Options

Properties of Steel

**Carbon steel** is steel where the main alloying constituent is carbon in the range of 0.12-2.0%. Its price is much lower than Stainless Steel. Due to its tendency to rust quickly, special precautions have to be taken to protect the surface against flash rust.

Carbon steel is used chiefly in the manufacture of bakeware. For top of stove use, carbon steel is typically found in imported woks and small frying pans. One of carbon steel’s most important qualities is its inexpensive price.

Carbon steel that is not covered with a factory coating or finish, must be seasoned with oil, just as raw cast iron is, in order to prevent rusting. Such oil seasonings cannot be cleaned in home dishwashers. Most carbon steel, if it is not coated, will have a black oxide finish. While this is attractive, it doesn’t offer significant resistance to rusting.

On the other hand, carbon steel, coated with today’s high performance coatings, (so long as their integrity is not compromised) is widely used for bakeware. The dark coatings absorb oven energy well and allow for the use of lower baking temperatures and even baking results.

Carbon steel cookware and bakeware may be produced by stamping, drawing or by folding.

**Aluminized steel** is made by coating steel with aluminium and silicon at high temperatures that cause it to diffuse into the steel creating an intermetallic layer above the steel base layer, but below the outside aluminium coating. The aluminium coating is then oxidized to form an oxide layer over the aluminium coating.