

Magnetism and Habia Braid Wire

The steel wire that Habia Teknofluor uses for braiding is stainless and normally stainless steel is assumed to be non-magnetic. A non-magnetic stainless steel has an austenitic structure. If a stainless steel is cold worked, for example by pressing, rolling or drawing, it can undergo a structure transformation from austenitic to martensitic. Martensite is magnetic and therefore a stainless steel can become magnetic.

Martensite is a product of cold-working (strain hardening). If a material is softened e.g. by annealing the material loosens its martensitic structure, but it will also result in reduced hardness. Martensite formation is not an unwanted effect, since it contributes to the steel becoming harder. However, the fact that the steel becomes magnetic is a side effect, but it will not affect the mechanical properties of the steel.

This is the case for Habia's braid wire that has been cold drawn to its right dimension. Therefore, Habia's stainless braid wire is magnetic.

