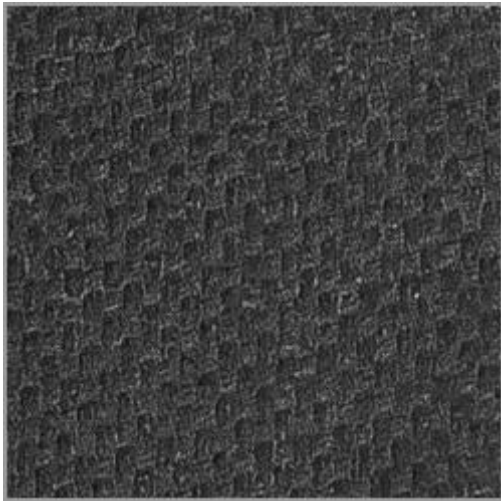


G10



G10 is a so-called glass-fiber-reinforced plastic (GRP), which is used mainly for handles, but also for blades and even for whole knives.

G10 is a composite material as glass fiber reinforced plastic. These are materials which consist of at least two starting materials. The special feature of composite materials is that the starting materials in the composite material resulting from them are retained as independent structures. They therefore also retain their very own chemical and physical properties. Composite materials are, in contrast to conventional materials, generally lighter and more resilient. Therefore, they were first used primarily in those production areas in which weight reduction is of particular importance, for example in aircraft and racing car construction. For a number of years, they have also been increasingly used for selected other products, including knives.

The starting materials used for G10 are glass fibers and epoxy resin. Glass fibers are obtained by melting glass and drawing fine threads from the melt. Glass fibers have a high resistance to chemical materials and physical effects and are therefore very resistant to weather and aging. They are also incombustible. Finally, glass fibers have a high so-called elastic modulus, that is, they are comparatively stable. Epoxy resin is a synthetic resin that can be cured to a plastic. After curing, epoxy resin is extremely strong, but at the same time much lighter than metals with comparable properties.

For the production of G10, glass fiber matrices (woven structures of glass fibers) are admixed into the epoxy resin composition, molded therewith, and then cured. By curing, the glass fiber mat is firmly bonded to the epoxy resin. The resultant fiber-plastic composite owes its stability and resistance to the glass fibers, and its ease to the epoxy resin. Handles made from G-10, blades or whole knives are often black or anthracite, handles of this material usually have a rough surface.