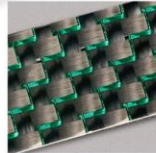


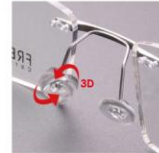
FREE FORM™ Carbon Fiber Eyewear by Thomas Trauth



interlaced green lining



screwless hinge



3D nose pads



adjustable temple

Thomas Trauth, a renowned eyewear designer from Stuttgart area, Germany was commissioned to design a range of carbon fiber frames for Free Form Eyewear in the spring of 2009. Trauth was the creative mind behind many eyewear brands like Marc O'Polo, Aigner, Mont Blanc and Ferrari. His exceptional knowledge of utilizing carbon fiber material dates back to his days leading the design and research team at the then eyewear giant Metzler Optik Partner some 20 years ago. Carbon fiber is a difficult material to work with and making the project more challenging is Thomas Trauth's uncompromising attitude of putting aesthetics, ergonomics and simplicity above all design elements. He insisted to use technology to help achieving these goals but not as means to show off.

This is the story about Thomas Trauth, with his team of product engineers, spent 2 full years of numerous tests and redesigns to overcome all the technical problems and eventually succeed in the Free Form Carbon Fiber line, which bears his name.

There are 2 types of manufacturing processes to produce carbon fiber eyewear:

The easier "Dry Process" uses prefabricated carbon fiber sheets or blocks of carbon and milled into shapes. Individual carbon fiber components (e.g. bridges and temples) are then connected to each other by screws and metal joints. Most carbon fiber frames in the market use this technique but Thomas Trauth cannot agree that the clumsy screws and nuts can match his design philosophy.

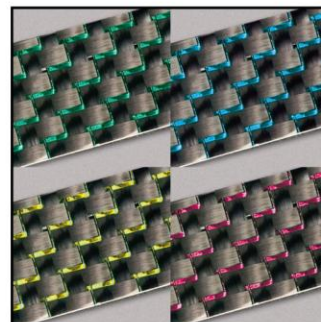


carbon filament



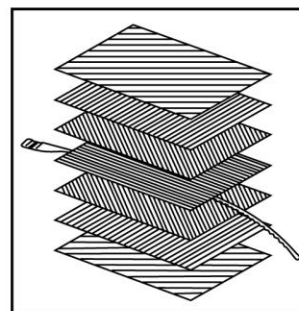
carbon cloth

The team was then directed to the "Wet Process" in which the starting raw material is thin strands of carbon filament about 0.005-0.01 mm in diameter (1/10 of human hair). 3,000 such carbon fibers are twisted together to form a yarn and then woven into a fabric. Bringing this weaving process inhouse allows Thomas Trauth to design unique carbon fiber patterns by interlacing color plated glass fiber threads (gold, silver, green, blue, red) through the black carbon yarns. Free Form Eyewear is the first in industry to introduce these non-classic carbon patterns with the elegantly interweaved linings.



multi-color interwoven linings

The soft fabrics (7 layers) are then laminated on each other with epoxy, heated up to 300 degree Celsius, and then kept in a mold for 24 hours to take the shape of the intended components through a gradual solidification process. During this stage, a stainless steel core and connectors are lay in between these fabrics before the hardening started. With this metal core going through the carbon temple, Free Form Carbon Fiber collection is one of the very few in the market to have an easily adjustable temple tip. The embedded connectors help to get rid of the showing screws and nuts, which makes the design clean and sleek.



fabric lamination w/ inlay core

FREE FORM™ Carbon Fiber Eyewear by Thomas Trauth

The finishing step involves the smoothing of the carbon edges. Since carbon fiber, when hardened, is extremely strong and hard to polish, an ultra-high pressure waterjet is used to trim the sides. Then the edges are again coated with epoxy to seal off the carbon inside. A very small percentage of human population is allergic to carbon particles when in direct contact to the skin.



waterjet trimming

Carbon fiber is generally more rigid than any other material used to make eyewear. Therefore Thomas Trauth has directed his product engineers to pay special attention to the overall ergonomics and the adjustability of the frame itself. To achieve ultimate comfort and wearability, the frame chassis is made of flexible and adjustable beta-titanium. The carbon temples are connected to the front with screwless hinges, molded in wear-free glass fiber infused plastic, to ensure constant smoothness in motion. Perhaps the most sought after feature for opticians is the effortless, 3D nose pad system which allows infinite orientations to fit any nasal contour.

Free Form Carbon Fiber Eyewear by Thomas Trauth is exclusively distributed in Germany by AS Brillenmode GmbH (as-brillenmode.de) in Hamburg. The Schimmelpfeng couple, owner and founder of the company, are keen and expert recruiters of new and unique designer products since 1993. Among others are Staffan Preutz Design, KunoQvist, etc.