

The URWERK 103.08 TiAIN

The new jewel in the crown of URWERK's 103 collection

Geneva – September 2007



For the very first time URWERK presents its iconic 103 with a steel case and not just any steel but an incredibly hard TiAIN-coated steel. With this new model, URWERK blurs the frontier between horological art and cutting-edge technology. The coat of the steel 103.08 is the hardest yet known in the world of *haute horlogerie*.

TiAIN - **T**itanium **A**luminum **N**itride - treatment is well-known in industry for its exceptional properties. A TiAIN coating less than 4 microns thick has the effect of multiplying the resistance of the underlying metal to scratches, shocks, oxidation and even acids.

"TiAIN is a hard material which can be used as protective coating to enhance the lifetime of a variety of work pieces against mechanical or chemical attacks. The hardness of TiAIN is often between 30 and 40 GPa. In comparison, the hardness of DLC (diamond like carbon) is 20-25 GPa". Dr Ayat Karimi, Institute of Complex Matter Physics, EPFL, Lausanne.

The 103.08 in TiAIN coated steel is the new jewel in the crown of URWERK's 103 collection. The 103.08 is lighter than its gold and platinum stable mates, yet much harder. The proof is in the numbers:

Gold : 380Vickers

Steel : 600 Vickers

TiAIN coat : 3500 Vickers

Sapphire: 4000 Vickers

« Profiting from the latest technical advances to continue developing our models is a must for URWERK. It was only after having seen and extensively tested the exceptional properties of TiAIN that we created our very first 103 steel case watch. The TiAIN appears to have the gift of endowing supernatural properties to common metals like steel." Felix Baumgartner, master watchmaker and co-founder of URWERK



TiAlN is an application which was originally developed for industry. When machining metals, the first requirement is that tool is harder than the material to be machined. Considerable research therefore goes into developing new methods of hardening. « *We use this process for the manufacture of all our tools, including those for milling and CNC machines. Its superb properties vis-a-vis oxidation and excellent resistance to wear, make TiAlN the coating of choice where thermal stresses are significant - TiAlN treated tools last much longer and can work at extreme temperature in excess of 800°C.*» Blösch.

Attractive aesthetics can be added to TiAlN's technical superiority. Its colour is dependant on the Titanium/Aluminium ratio and can range from melting bronze to stormy black.

« *Concerning sculpting, the most important quality of an object is its material. While studying sculpture at Art School, I worked with different kinds of metals. There is a real sensual contact with the material: you can feel its strengths, its softness. You discover its real nature.* " Martin Frei, designer and co-founder of URWERK

La 103.08: Harder than Steel!

URWERK 103.08: Technical Specifications

Case: available in steel

Dimensions: 50mm x 36mm x 13.5mm (including lugs)

Movement: Caliber 3.03, manual wind, 43-hour power reserve, 21,600bph/3Hz.

Unique triple base plate in ARCAP P40 black PVD coated. Hour satellites in aluminium, orbital cross in grade 2 titanium.

Control Board: Grade 5 titanium, power reserve indicator, 15 minute and seconds dials for precise Time setting, user adjustable fine-tuning screw.

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