

MATERIALS



316L STAINLESS STEEL

For the manufacturing of all accessible components of its steel watches, Tissot has selected a very high quality of stainless steel from the 316L family. The advantages of this steel are its high corrosion resistance and excellent durability.



PVD COATING

The advantages of PVD (physical vapour deposition) are that it deposits a thin but hard layer that is resistant to corrosion, provides a strong adherence, is hypoallergenic and offers many choices of colours.

This process is performed under vacuum conditions. Microscopic particles are deposited on the products by ion bombardment. Very thin layers (1 to 3 microns) of impurity-free components can be made which possess a high level of hardness (nitrides, carbides, etc.).



TITANIUM *

Titanium is a metallic element found in the earth's crust. Titanium is approximately 50% lighter than steel, hypoallergenic because it is nickel-free and 100% recyclable. When exposed to the atmosphere, titanium forms a tenacious oxide film that is resistant to saltwater corrosion.



MOTHER OF-PEARL

Mother-of-pearl is a hard, iridescent inner layer of certain shells, including abalone, pearl oyster and mussel. Mother-of-pearl is mainly composed of calcium carbonate deposited in thin, overlapping layers. In both Eastern and Western cultures, mother-of-pearl has a long history of use in decorative inlays and finished products. Being a natural material that is never exactly identical in its look, Mother-of-pearl is perfect for those who are looking for a unique watch. Thanks to new technologies it is available in colours from snow white to midnight blue.

*TITANIUM GRADE 2

Density Titanium Grade 2: 4,50

Chemical analysis Titanium Grade

2: Carbon – 0,08% max. Nitrogen

– 0,03% max. Oxygen – 0,25% max.

Hydrogen – 0,015% max. Iron – 0,3%

max. Titanium – balance

GOLD

Gold is a chemical element with the symbol Au (from the Latin aurum) and illustrated by the atomic number 79. It represents a precious metal which has been extremely sought after and appreciated since the beginning of time in the form of coins or set jewellery. Pure gold is the most malleable and ductile of common metals. It is dense and at the same time tender. After extraction, the pure gold is alloyed with 0.01% lead. In order to give the metal a firmer aspect, the need to create an alloy is inevitable. The carat is a unit of purity for gold alloys (24-carat gold = 100% pure gold). Tissot uses 18-carat gold (75% pure gold) in the manufacturing of its watch cases and bracelets. Depending on the required colour, the alloy changes slightly:

- 18K yellow gold is generally made of 75% gold, 12.5% silver and 12.5% copper;
- 18K rose gold is obtained by adding more copper than silver;
- 18K white gold is obtained by adding more silver (or palladium) than copper.



SAPPHIRE

Since the beginning of the 14th century, man has been producing synthetic sapphires and rubies that possess the same chemical and physical properties as the natural stones. Adding a metallic oxide to a synthetic sapphire gives it colour: white (pure aluminium), yellow, blue or green and ruby red.

The crystalline structure of the atoms gives the sapphire its hard and transparent properties. Sapphire is the hardest natural element after diamond, enabling it to be scratch-resistant as it is unlikely to come into contact with harder materials. Therefore, it does not age and it possesses a permanent shine which is easily regenerated to its intrinsic splendour with simple cleaning.

MATERIALS



1 / DIAMONDS CONFORM TO THE KIMBERLEY PROCESS

Tissot diamonds have been purchased from legitimate sources not involved in funding conflicts and in compliance with United Nations resolutions. Tissot hereby guarantees that these diamonds are conflict-free, based on personal knowledge and/or written guarantees provided by the supplier of our diamonds.



2 / CERAMIC

Ceramic is a non-metallic mineral material that undergoes treatment in a high-temperature environment. Many types of ceramics exist, each with unique properties suited to a variety of applications such as medicine or watchmaking. Ceramic is scratch resistant, anti-allergic and resistant to all types of chemical attacks, high temperatures, friction and abrasion. High-tech ceramic combines a timeless elegance and a refined touch concealing a hardness that is difficult to match.



3 / LEATHER

Since the beginning of the 20th century Tissot offers watches with leather straps. The leather has evolved ever since, going through various skins including lambskin, ostrich, alligator and shark. At times, the finishing has even included somewhat surprising colours and trends such as fuchsia and bright apple green. Nowadays, Tissot uses mainly calf leather and covers the interior part (the part in contact with the wrist) with a hypoallergenic material. The strap makers are self-taught craftsmen who learn how to cut the skins, treat, sew and polish them. Normally, they will fix the lining, sewing it on by hand, before threading and making markings for the sewing. Finally, they will paint the edges, applying up to seven layers to ensure a perfect finish.



4 / NATO STRAP

The NATO strap is a practical and stylish accessory that can effortlessly withstand extreme circumstances while still looking good. The canvas straps have an illustrious history – first used by British pilots and the army in the Second World War, they were toughened up by replacing the typical spring bar attachments with fixed bars fused into place. This meant that only one piece of fabric was needed for the strap, so if one of the bars should break under the pressure of combat, the watch would stay on the wrist as one side would remain attached to the case. This easy functionality adds a new dynamic to the Tissot watches, adding a very desirable aesthetic that's casual, tough and trendy. A straightforward design uses a hardy fabric and stainless steel buckle for a no-frills look, while a range of colours means wearers can choose the colour that best reflects their personality.



DIVER'S BEZEL

An essential feature of any diver's watch is the rotating bezel, used to measure, or rather, control time. This serrated ring, which is fitted with a graduated scale divided into minutes, allows divers to measure their exact immersion time. It is easy to manipulate, even when wearing thick diving gloves, thanks to its easy-to-grip studs. The bezel's working principle is both simple and reliable. At the beginning of each immersion, the zero on the bezel must be aligned with the minute hand. A simple glance at the position of the minute hand with respect to the bezel will show the diver at any moment how much time has elapsed since the start of the dive (in minutes).

The unidirectional rotation of the bezel is a safety feature that ensures that any accidental movement of the ring will always be interpreted by the diver as meaning that less time remains than actually does.

TACHYMETRE

The tachymeter measures speed by calculating the distance covered and the time required to cover this distance. The reference distance used is normally one kilometre, and time is measured by the chronograph. The position of the chronograph hand indicates the speed in km/h on the graduated bezel. A kilometre covered in 20 seconds, for example, corresponds to a speed of 180 km/h.

The tachymeter can also be used to measure speeds in miles per hour and knots. In this case, the reference distances used are the mile and the nautical mile, respectively.

