

PANERAI
LABORATORIO DI IDEE.



LAB-ID™



PANERAI LAB-ID™ LUMINOR 1950 CARBOTECH™ 3 DAYS – 49mm

A REVOLUTIONARY WATCH DEMONSTRATES THE ABILITY OF PANERAI'S LABORATORIO DI IDEE TO INNOVATE. THANKS TO A BRILLIANT DEVELOPMENT TAPPING INTO THE INFINITE POTENTIAL OF CARBON, THE NEW CREATION IS A CASE WITH EXCEPTIONAL CHARACTERISTICS, A COMPLETELY NEW DEEP BLACK DIAL AND A MOVEMENT NEEDING NO LUBRICATION, GUARANTEED FOR 50 YEARS*.

The past and the future come together in this extraordinary new demonstration of high quality contemporary watchmaking created by the Panerai Laboratorio di Idee: the **PANERAI LAB-ID™**. This new Special Edition, consisting of only 50 units, is notable for the timeless design of the Luminor 1950 collection, but it also presents a series of technological innovations which are evidence

of the ability of the Florentine brand to draw inspiration from its own past as it writes the future of high quality watchmaking.

To create a watch with exceptional performance and revolutionary characteristics, the Panerai Laboratorio di Idee has sought inspiration in the world of high technology,

exploring the most innovative international developments, and it has found the answer in the infinite potential of carbon. Every component of the new **PANERAI LAB-ID™** demonstrates the ability of this chemical element to create materials with exceptional properties: the case, made of a composite material based on carbon fibre; the dial, covered

with carbon nanotubes; and the movement that, thanks to the mechanical properties of carbon composites, works perfectly without any lubrication. It is a remarkable glimpse into the future of mechanical watchmaking, demonstrating the infinite development potential of a supremely traditional and appealing area of craftsmanship.





THE CARBOTECH CASE: EXCEPTIONAL PERFORMANCE AND EVERY EXAMPLE UNIQUE

The Luminor 1950 case – 49 mm in diameter – is made of carbotech, a composite material based on carbon fibre, which was introduced into the world of watchmaking by Panerai. As well as ensuring exceptional technical performance, carbotech has a dense, uneven blackness which varies with the cut of the material, making each individual example different from all the rest, and unrepeatable.

The structure of carbotech enhances both the appearance and the performance of the material, which is used to make the case and the bridge device with its locking lever protecting the winding crown, thus helping to ensure the watch's water-resistance to 10 bar (a depth of about 100 metres). To form the sheets of carbotech from which these

components are made, very thin sheets of carbon fibre are pressed together at a controlled temperature under very high pressure with the organic polymer PEEK (*Polyether Ether Ketone*), which links the composite material, making it yet more resistant and reliable. The carbon fibres used are very long, so as to achieve great aesthetic uniformity. The sheets are superimposed and pressed together in such a way the orientation of the fibres of each layer is out of phase with the one below or above it. This structure has the effect of increasing the mechanical properties of carbotech compared to those of similar materials or others often used in high quality watchmaking, such as ceramics or titanium. Carbotech is actually lighter and more resistant to external stresses, as well as being hypoallergenic and not subject to corrosion.



THE TECHNOLOGY OF CARBON NANOTUBES FOR A DEEP BLACK DIAL

Panerai watches have always been unmatched for the legibility of their dials, resulting from a remarkable blend of design, construction and materials technology, and the new **PANERAI LAB-ID™** forms a new chapter in the company's continuing history of research and innovation.

The dial has the classic sandwich structure invented by Panerai, in which the luminous substance – in this case blue-coloured Super-LumiNova® – emerges through the openings made in the dial corresponding to the hour markers and the small seconds dial, ensuring excellent visibility and legibility. In the **PANERAI LAB-ID™** these characteristics are further enhanced by the innovative materials used:

the dial has a coating of carbon nanotubes, used for the first time for the display dial. The optical properties of this special coating have been specially developed to absorb light, reducing reflection to a minimum and giving the dial a particularly deep black appearance, forming a spectacular contrast with the blue of the hour markers and hands, which follow the classic Panerai design.

Because it is not possible to print or stamp a dial with these characteristics, all the figures are formed directly on the dial crystal, to which a double anti-reflective treatment has been applied.



THE NEW P.3001/C MOVEMENT, RUNNING PERFECTLY WITHOUT LUBRICATION

The new **PANERAI LAB-ID™** has a **P.3001/C** hand-wound calibre with a power reserve of three days, now presented for the very first time in an extraordinarily innovative version, semi-skeletonised, completely without additional lubrication and with only four jewels. By using a wide range of solutions, specially devised for the individual parts of the movement and associated with the unique properties of **carbon**, the plates, bridges, barrels, escapement and anti-shock device use self-lubricating and dry lubricating materials, and are hence exempt from any liquid lubrication. These solutions have revolutionised the

need for maintaining and overhauling the calibre, enabling Panerai to guarantee it for no less than 50 years*.

- To remove the need for further lubricating the main **bridges** and the **plate**, these components are made of a completely new material: a low friction composite which integrates a Tantalum based ceramic. This new generation of composite is notable for its high percentage of carbon which minimises pivot friction, making jewels and their related lubrication unnecessary.

- Also eliminated is the need to lubricate the **escapement**, as a result of making the main components from silicon and applying a special coating of DLC (*Diamond Like Carbon*) to the wheelwork.
- A good two years of testing by the Laboratorio di Idee in the Panerai Manufacture identified the best type of coating – based on carbon – with which to treat the components of the two spring barrels of the **P.3001** calibre, so as to make conventional lubrication superfluous. The solution was to use a series of layers and sub-layers of coating, the surface one being coated with DLC.
- Last but not least, a surface coating of DLC on the four jewels means that there is no need to further lubricate the Incabloc® **anti-shock device**.

protected by a sapphire crystal which is set in the back of the watch, enabling the power reserve indicator to be read. The skeletonising of the bridges and the barrels makes it even easier to admire the technical excellence and finish of a calibre of extreme reliability and great precision. The movement's distinctive features include a balance wheel which is no less than 13.2 mm in diameter, fixed by a bridge with twin supports and oscillating at a frequency of 3 Hz, and the device which stops the balance and returns the seconds hand to zero (*seconds reset*) when setting the time, so that the watch can be perfectly synchronised with a reference signal.

The new **PANERAI LAB-ID™** (PAM00700) is supplied with a black leather strap, with contrasting sewing in the same blue as the luminous details of the dial.

Most of the P.3001/C movement of the new **PANERAI LAB-ID™** can be seen through the large porthole



*Please refer to the Guarantee booklet accompanying the watch for further details regarding the guarantee scope.

PANERAI LAB-ID™
LUMINOR 1950 CARBOTECH™ 3 DAYS – 49mm



PAM00700

MOVEMENT Hand-wound mechanical, P.3001/C calibre, executed entirely by Panerai. **FUNCTIONS** Hours, minutes, small seconds, power reserve indicator on the back, seconds reset. **CASE** 49 mm, carbotech. **DIAL** Deep black with luminous Arabic numerals and hour markers. Small seconds at 9 o'clock. **POWER RESERVE** 72H. **WATER-RESISTANCE** 10 bar (~100 metres).