

Get your sneakers on and go!

Running is one of the healthiest sports of all. Despite the trend in recent years toward running barefoot, good shoes are still indispensable for most runners. To ensure their quality, METTLER TOLEDO products are used.

Human beings are made for walking. We truly are. While millions of years ago our ancestors walked up to 15 kilometers a day in order to survive, we today have minimal physical activity. We sit in offices during the day and on sofas in the evening, we drive to work and take the elevator to the first floor. It's no secret that this passive lifestyle is bad for our health.

Short runs have a big impact

For those who haven't taken up running for lack of time, there's good news: a US study has shown that it doesn't necessarily have to be a 10-kilometer run. Running for just five to ten minutes a day promotes good health and reduces the risk of dying from cardiovascular disease by 45 percent compared to not participating in any sporting activity at all. This is the result of a study conducted by a team of researchers at Iowa State University, who surveyed over 55,000 adults for a period of 15 years.


Professional sportswear is essential for anyone who takes up running today. As far as running gear is concerned, functionality is key- it must be breathable and wick away sweat so that the runner's skin remains dry. In colder climates, the right clothing is a must, especially in winter. At temperatures around seven degrees Celsius and below, experts advise keeping your head protected with a cap or a headband. However, the most important part of your running gear is what you put on your feet.



Why are shoes so important?

The right shoes provide protection for your feet and support for weak muscles. With each step a runner subjects their feet to a load which is three to five times their own body weight. Shoes can lessen this load and thus prevent injuries to the foot muscles. At the same time, this cushioning makes running more comfortable. The amount of cushioning depends on an individual's running style.

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The MP90 Excellence Melting Point System determines melting point and melting range with high accuracy. There is a huge selection of running shoes on the market - light, strong and robust models, shoes for beginners or for competitive athletes. What they all have in common is that their manufacturers carefully check the raw materials from which the shoes are made to ensure consistent quality. This where METTLER TOLEDO's melting point systems come into play. For example, the Excellence Melting Point System with integrated video recording is used in the production of sports footwear.

The soles of most running shoes are made of plastic, the exact composition of which is every manufacturer's trade secret. The quality of the plastics used is important in high quality running shoes that have comfortable soles and good abrasion resistance. "The melting point is ideal for examining the optimum melting temperature for the sole molding process," explains Hans-Joachim Muhr of METTLER TOLEDO Analytical.

Automated analysis with video recording

To analyze the melting point a sample of material is first ground to a fine powder and transferred to a glass capillary. Since the plastics used have a very soft consistency, the manufacturer initially cools them with liquid nitrogen so that the sample becomes brittle, allowing it to be crushed. The capillary is then heated and the plastic melts. The Excellence Melting Point System records this process on video and simultaneously measures the sample's melting point. The manufacturer can observe precisely how the material changes and draw conclusions about the quality of the sample.

Professionals use the melting point for quality control purposes as well as in research and development, to identify substances and to check their purity. METTLER TOLEDO's Excellence Melting Point System makes this analysis simple and fast. Finding the right running shoes and motivating yourself to start running may take somewhat longer in certain circumstances. Five minutes is all it takes.



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