INSTITUT FÜR SPORTBODENTECHNIK

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IAAF Performance Specifications for Synthetic Surfaced Athletics Tracks - 2003

Some Highlights of the New Version

The IAAF Performance Specifications for Synthetic Surfaced Athletics Tracks have been updated and published as part of the new IAAF Track & Field Facilities Manual (August 2003). There are several important issues which must be heeded in order to avoid problems when field testing takes place.

The **requirements** are contained in chapter 3.1.2 with the testing laid out in chapter 3.1.3 of the 2003 Handbook. Please note that a new chapter entitled 3.1.4 "Repairs and Refurbishment" has been added.

Thickness will be very important - more than it was in the past.

The IAAF now requires thicker layers of synthetic material in the last meters of the runways () and steeplechase water jump (see table below). This was not mandatory in the past.

Runway	Thickness (mm)	Length
High Jump	20	Last 3m
Triple Jump	20	Last 13m
Pole Vault	20	Last 8m
Javelin	20	Last 8m plus overrun
Steeplechase water jump	25	Water jump landing

The approval process for synthetic surface products now includes the documenting of the thickness necessary to meet the Force Reduction requirement. This will be known by the term **product specific minimum thickness** (psmt). The IAAF manual states:

> "The average thickness laid will probably have to be greater to ensure that no in-situ test result will fail. The total area over which the thickness falls more than 10% below the thickness given in the IAAF Product Certificate for the material used shall not exceed 10% of the total surface area. The high stress areas with a deliberately thickened surface shall not be taken into account in computing these percentages. The IAAF website contains details of all IAAF Certified Products and the thickness at which they meet the dynamic characteristics required by the IAAF. Note that force reduction and vertical deformation performance requirements take precedence over the thickness requirements. It is important to remember that the thickness values quoted are not determined to the very top of the surface crumb or texture, but to a point somewhat below that as laid down in a precise method of test."

Force Reduction to be tested with the device "BAA" (before: Berlin Artificial Athlete)

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Vertical Deformation to be tested with the device "SAA" (before: Stuttgart Artificial Athlete)

Test Locations have been stipulated more specifically.

Quote of IAAF Track Manual

At least one measurement shall be made for every 500m² of normal thickness synthetic surface, with a minimum of twelve (12) measurements over the facility. The test positions shall be as follows:

- At the discretion# of the test laboratory in any lane around the first radius*
- In the centre of lane 2 at the 130m mark on the back straight
- In the centre of lane 5 at the 160m mark on the back straight
- At the position of lowest thickness on the back straight*
- At the discretion# of the test laboratory in any lane around the final radius*
- In the centre of lane 1 at the 320m mark on the main straight
- In the centre of lane 4 at the 350m mark on the main straight
- In the centre of the outer lane at the 390m mark on the main straight
- At the position of lowest thickness on the main straight*
- At the discretion# of the test laboratory at any position (except the high-jump take-off point) over the semi circular area. Where there are two semi circular areas, a test shall be performed on each of them.
- At the discretion# of the test laboratory at any position (except the reinforced areas) on each of the runways (long jump/triple jump, pole vault, javelin) and in the steeplechase lane.

Whenever the selection of the test location is left at the discretion of the laboratory, that location must be close to the average thickness of the track as a whole.

* For the purposes of testing, the first radius is defined as 10m to 100m, the back straight as 110m to 200m, the final radius as 210m to 300m, and the main straight as 310m to 400m.

If the area of synthetic surface is exceptionally large (for example 10 or 12 lane straights), any necessary additional tests shall be at locations selected by the test laboratory.

At each location, the temperature of the surface shall be measured with a needle temperature probe and recorded. Each test position shall be recorded on a plan of the facility with the results recorded in the report.

Note: if the surface temperature is outside the permitted range of 10°C to 40°C, temperature correction of the results may be employed on the basis of interpolation from laboratory results as described in the first paragraph. However, it is sometimes possible to avoid the need for this, by conducting the testing at a different time of day. For instance, if the facility is in a hot region, testing early in the morning or in the evening can result in the surface temperature falling to within the above range.

End of quote.

HJK, Eschenz, September 17, 2003

Note: - The new IAAF Track & Field Facilities Manual may be ordered from the IAAF website at http://www.iaaf.org/newsfiles/19764.pdf (€ 100.00)
- The list of acknowledged products can be downloaded from http://www.iaaf.org/newsfiles/19739.pdf
- The IAAF Certification Process is available at http://www.iaaf.org/newsfiles/19735.pdf