# IAAF CERTIFICATION SYSTEM

## REPORT OF SYNTHETIC SURFACE PRODUCT TEST

| This form must be sent to: | INTERNATIONAL ASSOCIATION OF ATHLETICS FEDERATIONS<br>Attention: Technical Manager<br>17, rue Princesse Florestine<br>BP 359 - MC 98007 Monaco Cedex<br>Tel: (+377) 93 10 88 88 - Fax: (+377) 93 15 95 15 - Direct Fax (+377) 93 50 32 63<br>E-mail: technicalofficer@iaaf.org |
|---|---|

**To obtain an IAAF Product Certificate for a synthetic surfacing material, the product must have been proven to conform to the specifications in the IAAF Track Facilities Testing Protocols. The testing must be undertaken by an IAAF Accredited Laboratory for Synthetic Surface Testing using equipment and testing procedures in accordance with the IAAF Track Facilities Testing Protocols and the results of the testing must be recorded on this proforma.**

| TESTING | | | |
|---|---|---|---|
| Testing Laboratory: | Kiwa ISA Sport B.V. | | |
| Date of Test: | November 2014 | | |
| Tester(s)' Name(s): | R. Janssen | | |
| | | | |
| Test Report No.: | 141001127 | | |
| **TRACK SURFACE PRODUCT** | | | |
| Product's Trade Name: | AstroTrack 17 | | |
| Manufacturer: | ASI Astro Group | | |
| Address: | 2006 Damac Smart Heights, off Hessa Street | | |
| | Tecom Dubai, United Arab Emirates | | |
| Telephone: | +971 4 2775962 | | |
| Fax: | +971 4 2775963 | | |
| E-mail: | astrotrack@asi-astro.com | | |
| Material Supplier(s): | Gezolan Swiss epdm, German PVP sbr | | |
| | and BASF Urethanes | | |
| Basic description | ☐ Full polyurethane | ☒ Spraycoat system | |
| | ☐ Sandwich system | ☐ Polyurethane on rubber | |
| | ☐ Other: | | |
| **Description of Surface Composition** | | | **Appr. Thickness** |
| Top Layer/Texture: | spray coat | | 2.5 |
| | | | |
| Middle Layer(s): | | | |
| | | | |
| Bottom Layer: | semi-pore sealed with basemat | | 12 |
| | | | |

**Four sample pieces of the product, each at least 500mm x 500mm, should be supplied to the laboratory by the manufacturer. (One sample for testing and three samples for retention by the laboratory and the IAAF.)**

# CONTENTS

## 1. Difference between Overall Thickness and Absolute Thickness (in mm to 0.1mm)

| Thickness | Test 1 | Test 2 | Test 3 | Test 4* | Test 5 | Test 6 | Average |
|---|---|---|---|---|---|---|---|
| Overall | 15.0 | 16.6 | 15.4 | 17.0 | 18.0 | 15.3 | 16.2 |
| Absolute | 14.6 | 15.9 | 15.1 | 16.7 | 17.6 | 14.8 | 15.8 |
| Difference | 0.4 | 0.7 | 0.3 | 0.3 | 0.4 | 0.5 | 0.4 |

**A minimum of four thickness measures shall be taken.*

## 2. Testing at Standard Laboratory Temperature Ø

| Recorded Test Drop No.* | Thickness (Absolute) mm | Sample Temperature °C | Force Reduction % | Vertical Deformation mm |
|---|---|---|---|---|
| 1 | 15 | **23** | 47 | 2.4 |
| 2 | 15 | **23** | 46 | 2.5 |
| 3 | 15 | **23** | | 2.4 |
| Averages | 15 | 23 | 47 | 2.4 |

**The average result is determined from two recorded results for FR and three recorded results for VD in accordance with the Test Protocols*

*Ø Additional testing at other locations on the sample may be undertaken and recorded.*

**Do any of the individual force reduction and/or vertical deformation results fall outside the allowable ranges of 35% to 50% and 0.6mm and 2.5mm for force reduction and vertical deformation respectively?**

☐ YES ☒ NO

## 3. The Effect of Temperature on Force Reduction and Vertical Deformation

| Thickness (Absolute) mm | Intended Sample Temperature °C | Actual Sample Temperature °C | Force Reduction % | Vertical Deformation mm |
|---|---|---|---|---|
| 15 | **0** | 1.0 | 47 | 2.4 |
| 15 | **10** | 10.2 | 47 | 2.4 |
| 15 | **20** | 20.0 | 47 | 2.4 |
| 15 | **23** | 22.6 | 47 | 2.4 |
| 15 | **30** | 29.8 | 47 | 2.4 |
| 15 | **40** | 39.7 | 47 | 2.5 |
| 15 | **50** | 49.7 | 48 | 2.5 |

**Do any of the individual force reduction and/or vertical deformation results in the temperature range 10°C to 40°C fall outside the allowable ranges of 35% to 50%, and 0.6mm and 2.5mm for force reduction and vertical deformation respectively?**

☐ YES ☒ NO

**If the answer is YES then the manufacturer should be advised so that they can make the necessary arrangements to ensure that their surfacing will not fail an in-situ test because of temperature effects on the properties.**

## 4. Friction (Coefficient of Friction or TRRL Scale Reading)

| Test No. | Friction Reading* |
|---|---|
| 1 | 51 |
| 2 | 49 |
| 3 | 53 |
| 4 | 54 |
| 5 | 53 |
| Average | 52 |

**Average of five readings for the TRRL Pendulum or the average of three readings for the Sliding Resistance Tester.*

**Are any of the individual friction readings less than TRRL Scale reading of 47 or Coefficient of Friction 0.5? (If so highlight the readings in BOLD.)**

☐ YES ☒ NO

## 5. Tensile Tests

| | | Sample No* | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Property | Unit | 1 | 2 | 3 | 4 | 5 | 6 | Average |
| Tensile Strength | Mpa | 0.72 | 0.64 | 0.69 | 0.68 | 0.67 | 0.60 | 0.67 |
| Elongation | % | 100 | 72 | 86 | 78 | 96 | 91 | 87 |

**A minimum of four specimens shall be tested.*

**Are the average tensile strength or the average break elongation % less than 0.5Mpa for non-porous surfaces and 0.4MPA for porous surfaces, and 40% respectively?**

☐ YES ☒ NO

## Attachments

☐ **One reference sample of the material tested is to be supplied with the report to the IAAF.**

## Conclusions

**The synthetic surfacing material was tested in accordance with the IAAF Track Facilities Protocols as incorporated in the IAAF Track and Field Facilities Manual.**

**I hereby certify that all information provided in the report is accurate and is the result of well-conducted laboratory testing.**

**I consider that the synthetic surfacing material meets the requirements for an IAAF Product Certificate.**

☒ **YES** ☐ **NO**

**If the answer is NO please state below the reason(s) why the track surfacing material does not meet the specifications in the IAAF Track Facilities Testing Protocols fully.**

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|---|---|
| **Date:** | **2nd March 2015** |
| **Authorised Director's Name:** | **T.A. Joosten** |
| **Signature:** | |