

# THE TECHNICAL RUNNING SHOE GUIDE

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*(A clinical guide)*

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## CARBON PLATED SHOE GUIDE

This newly revised guide includes Traditional running shoe models available in South Africa,

Carbon plated shoes, Sports socks, Maximalistic running shoes, Minimalistic Running Shoes.

Only shoe & sock models that are available in South Africa are included.



UPDATED 2026

12/2025 ASICS

1/2026 ANTA

NEW BRAND

1/2026 OLYMPIC

UPDATED 2026

UPDATED 2026

UPDATED 2025

1/2025 FALKE

2/2025 SAUCONY

3/2025 NEW BALANCE

3/2025 ADIDAS

3/2025 BROOKS

3/2025 JOMA

UPDATED 2025

3/2025 DIADORA

6/2025 ASICS

3/2025 ALTRA

6/2025 BALEGA

7/2025 ASICS

6/2025 SALOMON

UPDATED 2025

8/2025 NIKE

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# **CARBON PLATED SHOES / PLATED SHOES**

**Including other types of plates or inserts that are similar**

*Established 2019*

**Updated: 1/2026**

**Special mentions:**

See article: <http://www.footdoctor.co.za/wp-content/uploads/2022/06/CARBON-SHOE-GUIDE-20.6.2022-website-update.pdf>

## NEW CARBON PLATED RUNNING SHOES, PLATED SHOES, SUPERSHOES

Introduced 7/2019 (26), 9/2019, 12/2020, 6/2021, 6/2022, 7/2022, 9/2022, 2/2023, 8/2023, 12/2023, 3/2024, 5/2024, 10/2024, 11/2024, 4/2025, 6/2025, 7/2025, 1/2026

ADIDAS



**Adidas Adios Pro 4** RF39mm–FF33mm–HD6mm (Energy Rods)



**Adidas Adios Pro 3** RF39mm–FF33mm–HD6mm (Energy rods 2.0)



**Adidas Prime X 2 Strung** RF50mm–FF43mm–HD7mm (Illegal running shoe)



**Adistar BYD** RF40mm-FF34mm-HD6mm (distance driven carbon infused plate, lightstrike pro and repetitor 2.0 midsole, continental rubber sole)



**Adizero Boston 12** RF39mm–FF33mm–HD6mm (Energy Rods)









**Adizero Tekumi Sen 10** RF33mm–FF27mm–HD6mm (Energy Rods)



**AdiZero Adios 9** RF27mm–FF20mm–HD7mm (Nylon)



	<p><b>Adizero Evo SL</b> RF39mm – FF33mm – HD6mm (Nylon Dogbone)</p> 
<p><b>ALTRA</b></p> 	<p><b>Altra Vanish</b></p> 
<p><b>ANTA</b></p> 	<p><b>ANTA ROCKET PRO</b></p> <p><b>Tempo runs or mid distance training</b></p> <p><b>Responsive springy feel</b></p> <p>Midsole – Dual density midsole – NITROEDGE – for responsive cushioning and good energy return, EVA BASE LAYER – durable and light and to support the softer midsole layer above</p> <p>ENBEDDED NYLON PLATE – midfoot stability and energy transfer</p> <p>RIDE – softer than a pure racing flat but firmer than a daily trainer</p> <p>Stack heights – RF28-FF22–HD6mm (28-22-6mm)</p> <p>Weight – M 227, W 210</p>  <p><b>ANTA ROCKET 6.0</b></p> <p><b>Tempo runs or mid distance training</b></p> <p><b>Responsive springy feel</b></p> <p>Midsole – NITROEDGE – for responsive cushioning</p> <p>V-SHAPED ELASTIC PROPULSION PLATE – rebound and forefoot drive during faster running</p> <p>Moderate fast workouts – tempo, steady state, daily runs</p> <p>Stack heights – RF28-FF20–HD8mm (28-20-8mm)</p> <p>Weight – M 295, W 245</p> 

## ANTA MACH 5

**Speed training & tempo runs**

**Road races 5km to 21km**

Midsole – EVA & RUBBER – lightweight cushioning, grip & durability

AW-SHAPED NYLON FORK – enhances snappy roll-off. Cuts lateral torque while allowing forefoot flexibility

Stack heights – RF28-FF22–HD6mm

Weight – M 235



## ANTA C202 6.0 PRO

**Marathon race day, long tempo runs,**

Midsole – DUAL LAYER NITROEDGE PRO FOAM – EVE/TPU BLOWN WITH NITROGEN – high energy return & long run comfort

FULL LENGTH AVIATION GRADE CARBON PLATE – engineered to improve propulsion, reduce ground contact time, smooth out the stride from landing to toe-off

Upper – A-web & xian fiber

Outersole – A-grip pro – high traction & durability

Stack heights – RF33-FF29–HD4mm

Weight – M 190



## C 202 G9

**Marathon race day, long tempo runs**

**10km to marathon**

Midsole – NITROEDGE PRO FOAM – responsive cushioning & excellent energy return

ENHANCED CARBON PLATE WITH INCREASED CURVATURE TO PROMOTE ROLLING MOTION, REDUCE GROUND CONTACT & IMPROVE PROPULSION

Upper – A-web & xian fiber

Outersole – Full-length liquid anti-slip rubber

Stack heights – RF33-FF29–HD4mm

Weight – M 181



### C 202

Marathon race day, long tempo runs

10km to marathon

Midsole – DUAL LAYER NITROEDGE PRO FOAM – EVE/TPU BLOWN WITH NITROGEN – high energy return & long run comfort

EMBEADED CARBON PLATE FOR PROPULSION WITH INCREASED CURVATURE TO PROMOTE ROLLING MOTION, REDUCE GROUND CONTACT & IMPROVE PROPULSION

Upper – A-web & xian fiber

Outersole – A-grip pro

Stack heights – RF33-FF29–HD4mm

Weight – M 21



**ASICS**  
asics

### MAGIC SPEED 5

Midsole – FF LEAP & FF BLAST PLUS – dual midsole composition

Full length CARBON PLATE between the 2 midsole layers

Outersole – Asicsgrip

Stack heights - RF37.5-FF30.5–HD7mm Increased stack heights reduced heel drop,

Midsole height – M 31–24









Weight – 196

















**Asics Metaspeed Sky Tokyo** RF39.5-FF34.5–HD5mm  
Motionwrap, CARBON PLATE, ASICSGRIP FF LEAP, FF TURBO, 170g



	<p><b>Asics Metaspeed Edge</b> RF28-FF20–HD8mm (25-15-9mm)</p>  <p><b>Asics Metaracer</b> RF24-FF15–HD9mm (25-15-9mm)</p>  <p><b>Asics Glideride 3</b> RF32-FF26–HD6mm (31-25-6mm)  <b>ENERGY SAVING</b> No carbon Plate between the Flytefoam and Flytefoam Blast Rocker sole Guidesole technology</p> 
<p><b>BROOKS</b></p> 	<p><b>Brooks Hyperion Elite 4</b> RF-FF–HD8mm</p> 
<p><b>DIADORA</b></p> 	<p><b>Gara Carbon</b>  6 – 13 Uk  RF40mm – FF34mm – HD5mm  Carbon plate, Anima pbx, Duratech 5000 sole</p> 
<p><b>HOKA</b></p> 	<p><b>Mach X 2</b> RF44-FF39-HD5mm W-RF37-FF32-HD5mm Pebax plate, increased rocker profile, PEBA and EVA midsole foams,</p>  <p><b>Cielo X 1</b> RF39–FF32-HD7mm W-RF37-FF-30-HD7mm  Winged carbon fiber plate, PEBA, Speed- centric rocker shape</p> 

	<p><b>Skyward X</b> RF48–FF43-HD5mm W-RF46-FF-41-HD5mm Convex carbon fiber plate, EVA and peba M/S</p> 
<p><b>JOMA</b></p> 	<p><b>R - 1000 2404 M&amp;L</b> RF-FF-HD7mm <b>ENDOPLATE CARBON FIBER PLATE</b>, Foam reactive midsole, Fly reactive technology, Premium, competition</p>  <p><b>R - 3000 2408 M&amp;L</b> RF-FF-HD8mm <b>CARBON PLATE</b>, Fly reactive technology, Competition, <u>Premium</u></p>  <p><b>R - 5000 2404 M&amp;L</b> RF-FF-HD6mm <b>CARBON PLATE</b>, Foam reactive midsole, Fly reactive technology, Competition &amp; race walk, <u>Premium</u></p> 
<p><b>MIZUNO</b></p> 	<p><b>Wave Rebellion Pro 2</b> RF38–FF36.5-HD2.5mm Mizuno Energy Lite, Mizuno Energy Lite+</p>  <p><b>Wave Rebellion Flash 2</b> RF35–FF34.5-HD0.5mm Mizuno Energy Lite, Mizuno Energy Lite+</p>  <p><b>Wave Rebellion Sonic 2</b> RF32–FF24-HD8mm Mizuno Energy foam, Mizuno Wave plate</p>

	
<p><b>NEW BALANCE</b></p> 	<p><b>FUELCELL SUPER COMP ELITE v4</b>  <b>Widths (M/W): D   B</b>  RF37mm – FF33mm – HD4mm  Weight (M/W): 230 (g)   191 (g)  Midsole – FuelCell (FC) with Energy Arc technology, Thinner carbon plate, Marathon racing shoe</p>  <p><b>FUELCELL SUPER COMP TRAINER v4</b>  <b>Widths (M/W): D   B</b>  RF40mm – FF34mm – HD6mm 4MM ??  Weight (M/W): 261 (g)   209 (g)  Midsole – FuelCell (FC) with Energy Arc technology, Carbon plate, 12/35 hardness with 20% PEBA blend</p>  <p><b>FUELCELL PROPEL v5</b>  <b>Widths (M/W): D   B</b>  RF28mm - FF22mm - HD6mm  Weight (M/W): 280 (g)   220 (g)  Midsole – FuelCell (FC) 10/35 durometer combined with a full length TPU plate</p>   <p><b>SC ELITE v3</b>  <b>Widths (M/W): D   B</b>  FuelCell with Energy Arc technology and a carbon fiber plate.  RF37mm - FF33mm - HD4mm  Weight (M/W): 229 (g)   179 (g)  Midsole – FuelCell (FC)</p>

	
<p><b>NIKE</b></p> 	<p><b>NIKE VAPORFLY NEXT% 4</b>  Technology: ZOOMX foam-cushioning, full length CARBON PLATE weight M8.5 169g  <b>Heel 35mm, Forefoot 29mm, offset 6mm</b></p>  <p><b>NIKE ZOOM ALPHAFLY NEXT % 3</b>  Technology: ZOOMX foam-cushioning, full length CARBON PLATE, ATOM KNIT UPPER, VISIBLE ZOOM AIR PODS, continuous bottom connects heel and forefoot. Fast shot outsole for lightweight, traction and durability  Weight M10 220g,W8 176g  <b>Heel M10 40mm, Forefoot 30mm, offset 10mm</b></p>  <p><b>NIKE ZOOM FLY 6 Road Racing</b>  Technology: ZOOMX AND SR-02 MIDSOLE FOAMS, full length CARBON FIBER FLYPLATE, TWO LAYER WOVEN MESH UPPER Weight M10 256g, W8 218g  <b>Heel 42mm, Forefoot 34mm, offset 8mm</b></p> 
<p><b>MR PRICE MAXED</b></p> 	<p><b>Maxed Elite Hi Racer (MAXED ELITE) R2700</b>  Full carbon plate, Pebax midsole</p>  <p><b>Elite KM (MAXED ELITE) R1300</b> Torsion plate</p> 

	<p><b>Elite Zeus Running (MAXED ELITE) R800</b> Carbon propel technology</p> 
<p><b>OLYMPIC</b>  </p>	<p><b>STREAK</b>          Hybrid road &amp; offroad performance shoe – street cross trainer          Short distance to ultra marathons          Gym training  <b>CARBON PLATE EMBEDDED IN MIDSOLE</b>          Midsole – PU cushioning system          Stack heights – RF-FF–HD8m          Weight – M 280</p> 
<p><b>PUMA</b>  </p>	<p><b>PUMA FAST - R NITRO ELITE</b> RF38-FF30-HD8mm          Propulsive racer, Nitro elite, PWRPLATE</p>  <p><b>PUMA FAST - FWD NITRO ELITE</b> RF36-FF27-HD9mm 5 – 10KM racer, Nitro elite, PWRPLATE</p>  <p><b>PUMA DEVIATE NITRO ELITE 2</b> RF38-FF30-HD8mm          Propulsion, Nitro elite, PWRPLATE</p>  <p><b>PUMA DEVIATE NITRO 2</b> RF38-FF30-HD8mm Propulsion, Nitro elite, PWRPLATE – forked ff plate</p> 
<p><b>SALOMON</b> </p>	<p><b>SALOMON S-LAB PHANTASM 2</b> RF-FF-HD9mm LRacing shoe, CARBON ENERGY BLADE, Optifoam</p> 

	<p><b>SALOMON S-LAB SPECTUR</b> RF-FF-HD8mm LRacing shoe, CARBON ENERGY BLADE, Optifoam, Stability</p>  <p><b>SALOMON S-LAB SPECTUR 2</b> RF-FF-HD8mm Racing shoe, CARBON ENERGY BLADE, Optifoam, Stability</p> 
<p><b>SAUCONY</b> saucony</p>	<p><b>PRO 4</b> RF39.5-FF31.5-HD8mm PWRRUN HB foam on top, PWRRUN PB foam on bottom, cushioning, S- curve carbon plate, FORMFIT fit, XT900 o/s, snappy SPEEDROLL technology, SRS super responsive sockliner</p>  <p><b>ENDORPHIN SPEED 4</b> RF36-FF28-HD8mm – Re - engineered <u>nylon plate</u>, men &amp; ladies, PWRRUN PB, Super critical sockliner, XT 900 carbon outersole, smooth SPEEDROLL technology</p>  <p><b>ENDORPHIN ELITE 2</b> RF39.5-FF31.5-HD8mm – Premium fast and light race day shoe, SPEEDROLL technology, New RUN FOAM midsole material, <u>Full length carbon fiber plate</u>, unisex, PWRRUN PB sockliner, PWRTRAC rubber outersole</p> 
<p>ON</p> 	<p><b>ON CLOUDSURFER 7</b> RF-FF-HD6mm – Performance running, Cloudtec No speedboard, Helion superfoam</p>  <p><b>ON CLOUDGO</b> RF-FF-HD6mm – Cloudtec cushioning TPU Speedboard, Helion super foam</p>



**ON CLOUDSTRATUS RF-FF-HD6mm** – Performance running, CloudTec layers, PP speedboard, Helion superfoam



**ON CLOUDNOVA FORM RF-FF-HD6mm** – lifestyle, Polypropylene and speedboard



**ON CLOUDFLOW RF-FF-HD6mm** – Polypropylene speed board, Helion superfoam - Racer / trainer



**ON CLOUDFLYER 4 RF-FF-HD6mm** – Trainer, TO MARATHON DIST, Polypropylene speed board



**ON CLOUD AWAY RF-FF-HD6mm** – lifestyle, Speedboard



**ON CLOUD X RF-FF-HD6mm** – Helion superfoam, Speedboard



**ON CLOUDBOOM ECHO 4 RF-FF-HD9mm** – carbon infused Speedboard plate – CloudTec cushioning midsole – CloudTec in Helion superfoam



**ON CLOUD MONSTER RF-FF-HD6mm** CloudTec cushioning, Helion super foam, Speedboard





**SKECHERS**



**Skechers Razor Elite**



	<p><b>Skechers Speed Elite</b></p>  <p><b>Skechers Speed Freek</b></p> 
<p><b>NOT AVAILABLE IN SA</b></p>	<p><b>Anta C202 GT</b>  <b>Atreyu 'The artist'</b>  <b>BMAI 42Km Turbo</b>  <b>Craft CTM Ultra Carbon</b>  <b>Down Speedster</b>  <b>Fila Racer Carbon</b>  <b>Health Hiracer</b>  <b>Li-Ning Feidian Elite 2.0, Li-Ning Feidian Elite 1.0</b>  <b>Li-Ning Feidian Challenger 2.0, Li-Ning Jueying</b>  <b>Qiaodam Fetying PB</b>  <b>Scott Speed Carbon RC</b>  <b>XStep 160X Pro, XStep 160X 2.0, XStep 160X 1.0, XStep 160X 1.0 Knit</b></p>



## THE TRUTH ABOUT THE "SUPER SHOES"

Forget the hyperbole and folklore, these are the facts.

**SUMMARY:**

- Repeated research indicates there is an energetic advantage\*
- However, this advantage is athlete specific.
- There is no universal advantage.
- All shoes are characterised by a **carbon fibre or nylon hybrid plate, high stack heights and defined geometry.**

All super shoes are characterized by radical geometry, with most incorporating a large rocker.

\* protective benefits with regards to attenuating muscle soreness, damage and inflammation.  
 Kelly B., et al 2019 Footwear Science 11:S1



Super shoes may reduce the net energy loss without increasing the mechanical demand at the ankle as we would expect.  
 Farina et al 2019 Footwear Science 11:S1

Positioning of the plate closer to the foot will improve performance but care should be taken to not alter the perceived comfort and/or increase injury risk.

Flores, N. et al, (2019) The stiff plate location into the shoe influences the running biomechanics, Sports Biomechanics, published online.  
<https://www.worldathletics.org/news/press-releases/modified-rules-shoes>

The foams in most super shoes are not EVA based, but hybrids or technical new materials like PEBAX.

World Athletics has decreed that the heel stack must not exceed 40mm.  
<https://www.worldathletics.org/news/press-releases/modified-rules-shoes>

Only one carbon fibre plate is permitted.  
<https://www.worldathletics.org/news/press-releases/modified-rules-shoes>

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**From Simon Bartold**

<https://www.bartoldclinical.com/infographic-the-truth-about-the-super-shoes-and-running-shoe>