

How Standards tables are compiled

1 Introduction

The tables are compiled by combining three elements: **World Records**, **Age Grade Factors** and **Club Standards**.

The World Record for the required distance is adjusted by the Age Grade Factor to obtain an equivalent World Record for that age and gender. This is then compared against the adjustment factors to determine your club standard:

Platinum:	Age Graded World Record + 20%
Gold:	Age Graded World Record + 35%
Silver:	Age Graded World Record + 50%
Bronze:	Age Graded World Record + 65%
Copper:	Age Graded World Record + 85%

1.1 World Records

World records are taken from the webpage: <https://worldathletics.org/records/by-category/world-records>. The WR times used are:

Female World Records

Distance	Time	Comment
1-mile	0:04:21	"Mile Road" At Riga on 01-Oct-23
3-km	0:08:16	Calculated - See note 1
5-km	0:14:13	"5 kilometers road" at Barcelona on 31-Dec-23
5-miles	0:23:50	Calculated - See note 2
10-km	0:30:01	"10 kilometers road" at Herzogenaurach on 12-Sep-21
10-miles	0:48:59	Calculated - See note 3
Half-Marathon	1:05:16	At Gdynia on 17-Oct-20
Full-Marathon	2:16:16	At London on 21-Apr-24

Male World Records

Distance	Time	Comment
1-mile	0:03:56	"Mile road" at Riga on 01-Oct-23
3-km	0:07:27	Calculated - See note 1
5-km	0:12:49	"5 kilometers Road" at Barcelona on 31-Dec-21
5-miles	0:20:58	Calculated - See note 2
10-km	0:26:24	"10 kilometers road" at Barcelona on 12-Jan-20
10-miles	0:43:10	Calculated - See note 3
Half-Marathon	0:57:31	At Lisbon on 21-Nov-21
Full-Marathon	2:00:35	At Chicago on 08-Oct-23

Notes

Some distances do not have a documented World record time. In these instances, the equivalent World Record time is calculated using Peter Reigel's formula $T2 = T1 \times (D2/D1)^{1.06}$:

Note 1	Calculation based on 5-km WR time
Note 2	Calculation based on 10-km WR time
Note 3	Calculation based on Half Marathon WR time

You may notice that some World Record times are slower than those in previous tables. This is because 'Road' world record times are slower than track / indoor times, however they are a better measurement when setting standards times.

1.2 Age Grade Factors

In athletics, "age grade factors" are mathematical calculations used to adjust an athlete's performance based on their age, essentially allowing for a fair comparison between athletes of different ages by essentially calculating what their time would be if they were at their peak performance age, typically considered to be in their mid-20s; this is achieved by applying a percentage factor based on their age and the specific event they are competing in, with older athletes receiving a higher percentage to account for natural decline in performance as they age.

The AG factors used in the tables are obtained as follows:

Ages 15 – 22:

Taken from 2015 WMA AG tables, link <http://www.howardgrubb.co.uk/athletics/wmalookup15.html>)

Ages 23 – 29:

AG factor of 1 assumed

Age over 30:

Taken from 2023 WMA AG Factor tables, link <https://world-masters-athletics.org/wp-content/uploads/2023/02/2023-WMA-Appendix-B.pdf>

An explanation of Age Grade Factors can be found in this Runners World article:

<https://www.runnersworld.com/advanced/a20794116/a-guide-to-age-grading/>

1.3 Club Standards

Club standards are Platinum, Gold, Silver, Bronze and Copper, and are derived by calculating Age Graded World Record plus a percentage as follows:

Platinum:	Age Graded World Record + 20%
Gold:	Age Graded World Record + 35%
Silver:	Age Graded World Record + 50%
Bronze:	Age Graded World Record + 65%
Copper:	Age Graded World Record + 85%