



Next Special Report

In the next edition of Gulf News' countdown to the 2014 World Cup, we pay tribute to the deadly marksmen who have won the tournament's Golden Boot award.

A BALL STORY

From animal bladders and leather to state-of-the-art synthetic technology, the evolution of the official Fifa World Cup match ball has been crucial to the development of the game itself. Now Brazuca carries the mantle into Brazil 2014.

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20. BRAZIL 2014 BRAZUCA

The inspiration for the design of this six-panelled ball came from the zig-zagging pathways of the Amazon river and the traditional bracelets of Brazilian culture. The name Brazuca — a term used to describe national pride in the Brazilian way of life — was the winner of a poll of about one million local football fans.

77.8% voted to name the ball Brazuca

Extensive testing

600 Players involved
30 Teams

287 Players interviewed.
30% were not Adidas-sponsored
10 Countries

Some of the testers



"Brazuca feels fantastic."
Steven Gerrard | England



"I've had the opportunity to try it out and it's great."
Lionel Messi | Argentina



"My first impression of the Brazuca is of a ball that is fantastic, that we're going to have a lot of fun with."
Dani Alves | Brazil

1. URUGUAY 1930
Two balls used
Due to a dispute, two balls were used in the final between Uruguay and Argentina. The first-half choice of the

Argentines, the Tiento (left), featured 12 panels to give it a spherical shape. Uruguay's Modelo 'T' (right), used in the second half, also had 12 wedges but featured a 'T' shape.

2. ITALY 1934
FEDERALE 102
Made by Ecas (Italy's central entity of sports suppliers), this ball featured arrowhead shapes on its 13 wedges, was handmade and the inner was made from a natural bladder.

3. FRANCE 1938
ALLEN
First brand to be official match ball sponsor. The stitch area was shaped by three wedges.

The ball before the World Cup began

c1900
The sewing of the leather panels was similar to a basketball's design, but a spherical shape had not yet been achieved. Different designs but the same principle remained until the first World Cup in 1930.



Richard Lindon (1816-1887)
An English leather worker, his contribution was key to the development of rugby balls as well as the football. He developed a safer Indian rubber inner as an alternative to animal bladders.



4. BRAZIL 1950
DUPLO T SUPERBALL
Bye-bye to stitches as this ball had 12 panels and a pump-up system very similar to those used today. The inner material was made of natural rubber.

5. SWITZERLAND 1954
SWISS WORLD CHAMPION
Used an innovation of 18 criss-crossed wedges and also introduced coloured surfaces — it was yellow — and had a built-in valve.

6. SWEDEN 1958
TOP STAR
Had 18 panels, making it similar to the Swiss World Champion, but was available in three colours (yellow, white and orange) for use according to the daylight conditions.

7. CHILE 1962
CRACK
Another with 18 wedges, but this ball's innovation was that it used bigger panels. The manufacturer's name — Custodio Zamora H. — was also printed on it.

8. ENGLAND 1966
SLAZENGER CHALLENGE
Used 25 wedges and had orange, lemon and white versions available. Was handmade in England.

9. MEXICO 1970
TELSTAR
A milestone in ball evolution, the Telstar featured 32 panels. The pattern of 20 white hexagons and 12 black pentagons produced a high-contrast combination that gave it better definition on the black and white televisions still used by much of the world.

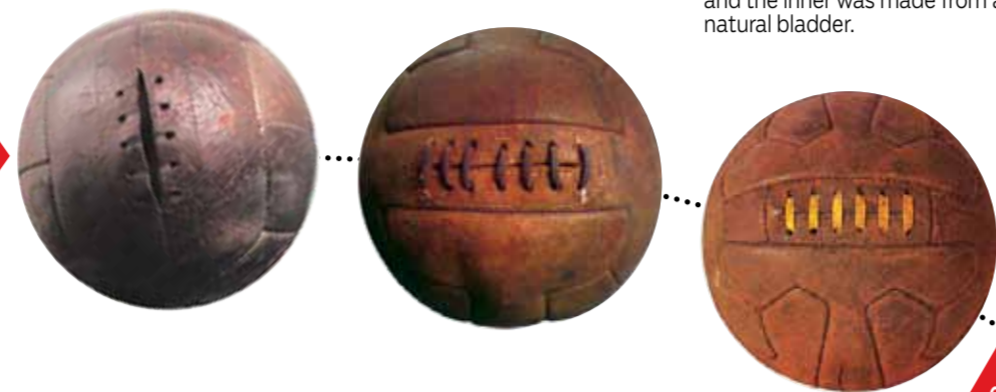
10. WEST GERMANY 1974
TELSTAR DURLAST
An improvement on the 1970 ball with a polyurethane coating providing waterproofing as well as protection from damage.

Telstar's history and legacy

The Adidas Telstar was named after the 1962 Telstar communications satellite (right), which had a similar panel effect. The ball's status as an icon in football circles was added to by the fact it was used as the official logo of the 1970 Fifa World Cup in Mexico.



The 2006 (top, right) and 2010 (bottom, left) official World Cup posters recalled the iconic Telstar design of 1970 (top, left), as do several modern trophies such as Fifa's Golden Ball (bottom, right).



From 1938 onwards, brands were printed on the ball



Circumference **69cm**

An interesting makeover



Polyurethane-based foam material

Surface texture details gives excellent grip

Butyl bladder

2D thermal bonding technology

Patched carcass

Panel shape

The thermal bonding of six x-shaped panels with rounded corners enables perfect assembly. The balls are produced in China.



19. SOUTH AFRICA 2010
JABULANI
The name means celebrate in Zulu, but many top players were critical of the ball before and during the World Cup, saying that it swayed unnaturally. Its structure was composed of eight thermally-bonded three-dimensional panels, with a grooved surface formed by Adidas' 'Grip and Groove' technology. The design had been developed with extensive academic input.

18. GERMANY 2006
TEAMGEIST
The number of panels was reduced from 32 to 14, which were bonded together instead of stitched. Each ball was personalised with the stadium name, date, time and teams playing, while a gold version was used in the final. Teamgeist means team spirit in German.

17. SOUTH KOREA/JAPAN 2002
FEVERNOVA
A new print pattern inspired by Far East cultures broke the design trend that dated back to 1978. The new triangular effect was printed on only some of the ball's hexagons. Was designed to be lighter and offer a more predictable flight path.

16. FRANCE 1998
TRICOLORE
This ball featured the colours of the French flag and the country's traditional cockerel symbol. Tricolore was also the first World Cup ball manufactured outside of Europe — it was made in Morocco and Indonesia — since the 1970 Telstar.

The top scorer in World Cups
Ronaldo, of Brazil, scored 15 goals in three World Cups between 1998 and 2006, one ahead of German duo Miroslav Klose and Gerd Mueller. Ronaldo was also an unused squad member at USA 1994.



Ronaldo celebrates his goal against Turkey at the 2002 World Cup.

Footballs used to achieve Ronaldo's record

WORLD CUP	Goals	Ball	Result*
1994 USA	0	QUESTRA	Winners
1998 France	4	TRICOLORE	Runners-up
2002 Korea/Japan	8	FEVERNOVA	Winners
2006 Germany	3	TEAMGEIST	Quarter-finals
TOTAL	15		

*Brazil's final placing in these tournaments

Fifa-certified football file

- File name: G73617 brazuca World Cup 2014 OMB*
 - Brand: Adidas
 - Category: Fifa football size 5
 - Quality: FIFA APPROVED
 - Authorisation number: 202.W8S
 - Certification period: 18.12.2012 - 17.3.2017
 - Test institute: Eidgenössische Materialprüfung- und
- *OMB (Official Match Ball) Source: quality.fifa.com

FIFA QUALITY SEALS

- Approved:** Special to OMBs. The ball must pass seven tests under demanding conditions.
- Inspected:** Special to replicas and training balls. The ball must pass six standard tests.



15. USA 1994
QUESTRA
This ball featured a space-related name and decorations as 1994 was the 25th anniversary of the host nation's Apollo 11 mission that took the first humans to the Moon. The lighter and more responsive Questra was the first to attract criticisms from goalkeepers for its unpredictability in flight.



14. ITALY 1990
ETRUSCO UNICO
Also used at the 1992 Uefa European Championships and 1992 Barcelona Olympic Games, this ball's texture, waterproofing and high-quality materials were lauded. The name and design took their inspiration from Italy's ancient Etruscans.



13. MEXICO 1986
AZTECA
The printed motifs were inspired by the host nation's native Aztec architecture and murals. The Azteca was the first fully synthetic ball — a big technological step because durability increased and water absorption decreased.



12. SPAIN 1982
TANGO ESPAÑA
Had the same look as in 1978, but this ball's innovation was waterproofing needlework, which meant it didn't get heavier in wet conditions. The Tango España was available in orange, yellow and white.



11. ARGENTINA 1978
TANGO
As an homage to Argentinian folk art, the printed design gave an optical illusion of 12 concentric circles surrounding the ball. That famous design was used in six successive World Cup balls.