SCIENCE BEHIND SPORT
THE FAN EXPERIENCE

BEHIND EVERY SPORTING EVENT AND HARD-WON CHAMPIONSHIP,
SCIENCE PLAYS A KEY ROLE IN MAKING FAN AND ATHLETE EXPERIENCES SAFER
AND MORE COMFORTABLE, AND PRODUCTS MORE SUSTAINABLE.

FOOD & BEVERAGE
DOWFROST® Inhibited Propylene Glycol-Based
Heat Transfer Fluid helps control temperature
throughout beer manufacturing to facilitate
consistent taste, color and aroma.

On average, 110,000 pints of draft
beer and lager are served at Wimbledon.¹

PERSONAL CARE
SunSpheres® SPF Boosters increase
the efficacy of UV filters while film-
toring technologies like EPITEX™
Polymers and DOWSIL™ Silicone Acrylates offer
long-lasting water resistance in sunscreens.

Sun protection during winter sports is just as
important as summer. Snow can reflect almost
100 percent of the sun's rays back to your skin,
and high-altitude areas receive a significantly
greater amount of UV radiation.²

DOWSIL™ 556 Cosmetic Grade Fluid helps with
taster dry time in antiperspirants and deodorants
without leaving white residue to keep athletes
and fans dry and comfortable all day.

PACKAGING
Flexible packaging technologies
help protect freshness, extend shelf
life, minimize spoilage and improve
overall safety to help decrease food waste.

At its peak
the Olympic Games Rio 2016 athletes' village kitchen³

Prepared 60,000
meals a day.

Used 460,000
points of ingredients.

Served 18,000
athletes, coaches and staff.

TICKETS
ROPAQUE® Opaque Polymer
coating technology for ticket receipts
create a permanent image to help reduce
smudging or ink transfer for fans putting
receipts in their pockets at a sporting event.

At the Olympic Games Rio 2016, more than
6.2 million tickets were sold.⁴

APPAREL & GEAR
INFUSE® Olefin Block Copolymers are one of the most lightweight
material options available. They
improve the rebound, compression set and
dimensional stability of a shoe, and
help protect the runner's foot by absorbing
shock from walking, running.

The average life span of a running shoe is about

300 to 450 miles

six months⁵

XIAMETER® Silicone Rubber offers
smoothness and comfort for swimming
essentials, from caps and ear plugs, to
diving masks and goggle straps.

Increasing interest in water sports is expected
to drive the swimwear market to $20 billion
by 2019.⁶

CONNECTING FANS
Dow-sourced ultra-pure solvents help
with faster processing speeds,
lower battery consumption and longer
smart phone life, helping fans share the experience
and stay connected to the latest scores.

150 million tweets were posted during
the Olympic Games London 2012.⁷

Other infographics in the science behind sport series:
GETTING TO THE STADIUM AND INSIDE AND OUTSIDE THE STADIUM

¹ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow
² www.olympicnews.com/rio-2016-olympic-games-olympic-news-olympic-athletes-olympic-sports
³ www.olympicnews.com/rio-2016-olympic-games-olympic-news-olympic-athletes-olympic-sports
⁴ www.olympicnews.com/rio-2016-olympic-games-olympic-news-olympic-athletes-olympic-sports
⁵ www.olympicnews.com/rio-2016-olympic-games-olympic-news-olympic-athletes-olympic-sports

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