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International Project Solutions

Grace for Sports and Stadiums



Wembley Stadium | London, UK

GRACE

Grace for Sports and Stadiums

Grace products have been used on sports and stadiums around the world for more than a quarter century

EMEA

Al Saad Sports Club Doha, Qatar
 Arsenal Football Stadium London, UK
 Aspire Dome (world's largest indoor stadium) Doha, Qatar
 Aviva Stadium, Lansdowne Road Dublin, Ireland
 Bahrain International Circuit (F1) Sakhir, Bahrain
 Blackburn Rovers FC Ewood Park Blackburn, UK
 Bolton Wanderers FC Reebok Stadium Bolton, UK
 Chelsea FC Academy Cobham, UK
 Chester Racecourse Chester, UK
 City Academy Bristol: Sports Facility Bristol, UK
 City of Manchester Stadium Manchester, UK
 Cricket World Cup Stadium Pune, India
 Croke Park Gaelic Athletic Sports Stadium Dublin, Ireland
 Dartford Dojo (British Olympic Judo) Dartford, UK
 Dubai Sports Complex - Aquatic Centre Dubai, UAE
 Glulam Sport Hall Milan, Italy
 Letzi Park - Zürich Football Stadium Zürich, Switzerland
 Liverpool Arena Liverpool, UK
 Lourizán Olympic swimming pool Pontevedra, Spain
 Lusail International Circuit (Moto GP) Lusail, Qatar
 Manchester United FC Old Trafford Manchester, UK
 Meydan Racecourse Dubai, UAE
 Naas Racecourse Dublin, Ireland
 National Aquatic Centre Dublin, Ireland
 National Stadium Bucarest, Romania
 Olympic Aquatics Centre London, UK
 Olympic Main Stadium London, UK
 Olympic Velo Park London, UK
 Portlaoise Aquatic Centre Portlaoise, Ireland
 RICOH Arena Coventry, UK
 Royal Ascot Racecourse Ascot, UK
 Sheikh Zayed Cricket Stadium Abu Dhabi, UAE
 South Leeds Stadium Leeds, UK
 Stadio San Siro Refurbishment Milan, Italy
 Stadium of Light Sunderland, UK
 Tallin Football Stadium Tallin, Estonia
 Twickenham Rugby Stadium London, UK
 Watershed Pool Kilkenny, Ireland
 Wembley National Stadium London, UK
 Winter Olympics Ice Hockey Stadium Turin, Italy

AMERICAS

American Airlines Center (Dallas Mavericks) Dallas, TX
 Brickyard Ballpark Oklahoma City, OK
 Camden Yards Baltimore, MD
 Cardinal Stadium St. Louis, MO
 Charlotte Coliseum (Charlotte Hornets and Bobcats) Charlotte, NC
 Chase Field (Arizona Diamondbacks) Phoenix, AZ
 CitiField (Mets Stadium) Queens, NY
 Citizens Bank Park (Phillies Stadium) Philadelphia, PA
 Cleveland Browns Stadium Cleveland, OH

Compaq Center (Houston Rockets) Houston, TX
 Cowboys Stadium Arlington, TX
 Fleet Center (Boston Bruins and Celtics) Boston, MA
 GM Place (Vancouver Canucks) Vancouver, BC, Canada
 Gulfstream Park Racetrack Clubhouse Hallendale Beach, FL
 Jobing.com Arena (Phoenix Coyotes) Phoenix, AZ
 Key Arena (Seattle SuperSonics) Seattle, WA
 Lambeau Field (Green Bay Packers) Green Bay, WI
 Lincoln Financial Field (Eagles Stadium) Philadelphia, PA
 Marlins Stadium Miami, FL
 Meadowlands (- Stadium) East Rutherford, NJ
 MS Braves Stadium Pearl, MS
 Nationals Park Stadium Washington DC
 Olympic Aquatics Center Atlanta, GA
 Pittsburgh Penguins Arena Pittsburgh, PA
 PNC Park (Pirates Stadium) Pittsburgh, PA
 Qwest Field (Seattle Seahawks) Seattle, WA
 RBC Center (Carolina Hurricanes) Raleigh, NC
 Reliant Energy Stadium (Houston Texans) Houston, TX
 Rose Garden (Portland Trail Blazers) Portland, OR
 Safeco Field (Seattle Mariners) Seattle, WA
 SBC Arena (San Antonio Spurs) San Antonio, TX
 Soldier Field Chicago, IL
 Target Field (Twins) Minneapolis, MN
 Turner Field (Atlanta Braves) Atlanta, GA
 University of Phoenix Stadium (Arizona Cardinals) Phoenix, AZ
 Xcel Energy Center St. Paul, MN
 Yankee Stadium Bronx, NY

ASIA PACIFIC

Brookwater Golf Club Brookwater, Australia
 Changsha Sports Centre Changsha, China
 Pyung Taek, Korea
 Fukui Dome Fukui, Japan
 Pattaya, Thailand
 Kwang Myung, Korea
 Macau, China
 Taipei, Taiwan
 Sydney, Australia
 ChiangMai, Thailand
 Singapore
 Jinan, China
 Hong Kong, China
 Singapore
 Sydney, Australia
 Bangkok, Thailand
 Bangkok, Thailand
 Hong Kong, China
 Tso Kung Tam Park

Grace for Sports and Stadiums

“ **Talent wins games, but teamwork and intelligence win championships.** ”

-Michael Jordan, Basketball Legend

Grace Capabilities

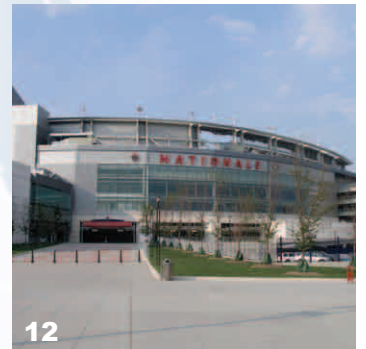
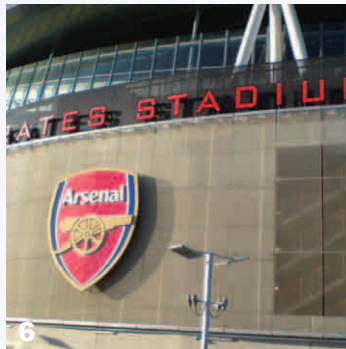
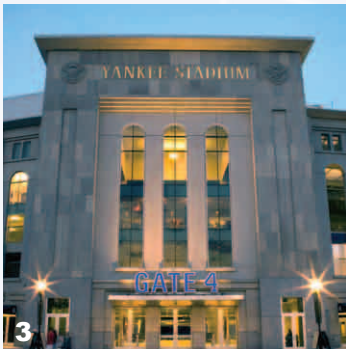
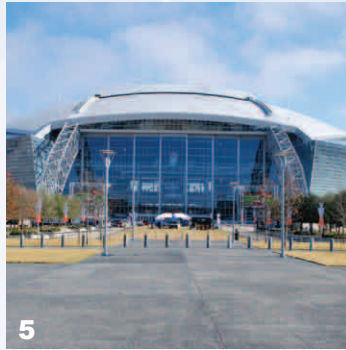
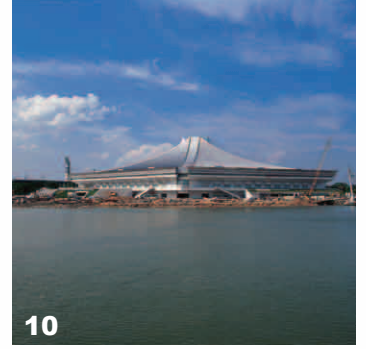
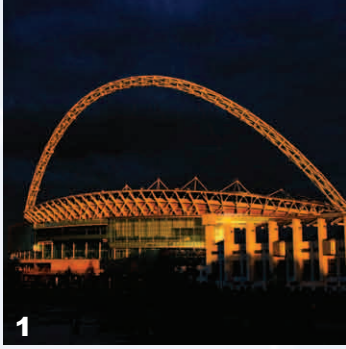
The Grace Construction Products team has served the needs of the international construction industry for more than half a century. Our quality products and innovative technologies have provided winning solutions to some of the most challenging construction projects. Today, Grace products are found in major buildings and infrastructure projects all over the world.

Many world famous sports facilities rely on Grace's premium products to enhance structural performance and ensure many years of uninterrupted service. Grace has participated in the construction of a wide variety of sports complexes and stadiums: football, baseball, hockey, cricket, judo, swimming, golf, car, motorcycle, or horse racing, to name a few. Architects, designers and contractors choose Grace to solve their complicated problems – from providing structural durability and improving the aesthetic appeal of concrete structures; to waterproofing below-grade building components; providing air, water and moisture protection to walls and roofs; and fireproofing the structural steel elements of the building.

Working on projects across borders and continents has become a common and necessary practice in today's environment. Grace has a global team committed to ensure international projects run smoothly and get the full support and coordination from concept design through construction and close out. We have the broad technology portfolio and the expertise to bridge differences in construction practices, regulatory requirements, and cultures and are ready to provide you with value-added solutions.

Grace Brands are Globally Recognized





1 Wembley Stadium | London, UK

4 Soldier Field | Chicago, IL

7 Aspire Dome | Doha, Qatar

10 Singapore Indoor Stadium | Singapore

2 Changsha Stadium | Changsha, China

5 Cowboys Stadium | Arlington, TX

8 Citizens Bank Park | Philadelphia, PA

11 CitiField | Queens, NY

3 Yankee Stadium | Bronx, NY

6 Arsenal Stadium | London, UK

9 Olympic Stadium | London, UK

12 Nationals Park | Washington DC



Grace for Sports and Stadiums

Application Areas

Substructure:

Selecting a below grade waterproofing system requires careful consideration to protect critical enclosed areas such as locker rooms, offices, mechanical rooms, pedestrian and utility tunnels common in sports architecture. This may include below slab areas, walls and buried roofs. Moisture penetration in the form of liquid water or vapor can cause significant damage to structural concrete and interior finishes, as well as lead to issues related to mold, mildew and poor indoor air quality. Grace is a global leader in both sheet- and fluid-applied structural waterproofing systems that offer leak protection for the design life of the structure.



Elevated Deck/Green Roof:

Even well designed, above grade horizontal surfaces are likely to catch and hold water. These areas may be used as pedestrian concourse and walkways or luxury suites and concession areas. Grace's waterproofing membrane, protection and drainage are applied directly to the structural deck and typically covered by a permanent wearing surface. These areas are often being utilized as green spaces. Interior applications include wet rooms such as commercial kitchens and bathrooms.



Engineered Façade:

Air, water and vapor leakage through the exterior wall can cause premature deterioration of the building envelope, increased energy costs, and resulting mold and mildew and poor indoor air quality. A properly designed air barrier system can have a dramatic impact on the aesthetics, performance, durability and energy efficiency of the building. Grace offers a full line of sheet and liquid, permeable and impermeable air barrier systems.



Sloped Roof:

Grace's underlayment products help extend the life of the roof by protecting against roof leaks caused by wind driven rain, snow, ice melt and at critical detail areas. No matter the climate or how complex the shape, geometry or type of roof covering is, a properly designed roof underlayment membrane can offer superior in place performance and leak protection for the design life of the structure.



Structural and Architectural Concrete:

Grace offers a wide variety of admixtures and fibers to meet design and construction requirements. Corrosion inhibitors cost-effectively protect reinforcement in stadium parking garages. Cracking and shrinkage in deck toppings are mitigated through the use of synthetic macro fibers and shrinkage reducing admixtures. Placement around congested reinforcement in site-cast concrete is addressed with high-range water-reducers. Retarders and accelerators are employed routinely to accommodate temperature extremes and meet stadium construction schedules. Integral color, surface retarders, and high-range water-reducers are combined to create architectural precast panels and precast/prestressed elements.



Structural Steel Fire Protection:

Sports Architecture often includes structural steel elements to accommodate the shape and curvature inherent in the design. Structural steel fireproofing is critical to protecting the structural integrity of the steel members from fire damage. Grace offers a range of standard, medium and high density spray-applied cementitious fireproofing materials for concealed or exposed, conditioned or unconditioned interior spaces, as well as exposed exterior applications. Damage resistant surface resists air erosion, abrasions and impact damage and are suitable for exterior exposure-resists freeze/thaw, wind and rain.



Grace for Sports and Stadiums

Grace technical experts can assist throughout your project delivery process

- Recommend the optimal building envelope solution for your project location.
- Work internationally with the project team throughout the entire construction process.
- Provide jobsite expertise and support.
- Facilitate global projects in all major construction segments.

Grace supplies products to more than 120 countries worldwide, through its plants and facilities in more than 40 countries, supported by a team of almost 6,000 people.

Key regional offices include:

UK (London), France (Paris), Italy (Milan), Belgium (Brussels), Poland (Warsaw), Turkey (Istanbul), U.A.E. (Dubai), Saudi Arabia (Dammam), India (Delhi), China (Shanghai, Hong Kong), Singapore, South Korea (Seoul), Australia (Sydney), USA (Boston, Chicago, San Francisco), Brazil (Sao Paulo) and many more locations globally.

Worldwide Headquarters

North America

W. R. Grace & Co.—Conn., 62 Whittemore Avenue, Cambridge, MA 02140-1692

www.graceconstruction.com/international-projects

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