GROUND BASED RADOMES

Support services for our radome products.

INSPECTION
We can help you obtain maximum reliability.

MAINTENANCE
Designs that require minimal maintenance.

AIR-SUPPORTED RADOMES
Large flexible composite radomes

SANDWICH RADOMES
Rigid self-supported radomes

SPECIAL CONFIGURATIONS
Non-spherical radomes (i.e.: CN tower ring)

ELECTROMAGNETIC WINDOWS
Pre or post tensioned EM transparent windows

ANTENNA COVERS
Protection for exposed point-to-point antennas

COMPOSITE MATERIALS
PTFE coated fabrics, cut to size and ready to mount

SAINT-GOBAIN PRODUCTS SOLD TODAY WAS DEVELOPED IN THE LAST FIVE YEARS

ONE OF THE MOST INNOVATIVE COMPANIES IN THE WORLD

Designing, manufacturing and servicing radomes
SHEERGARD® is the engineered solution for high performance ground based radomes

SHEERGARD® radomes for the ground based market are manufactured with one of two techniques.

Flexible composites are used in air supported and tensioned radomes and provide high strength and excellent EM performance.

Rigid composites are used in sandwich radomes and provide a self-supporting structure tuned for a specific frequency.

**FEATURES**

- **EXTREME ENVIRONMENTAL PROTECTION**
  SHEERGARD® PTFE coated fabrics have been analyzed and tested for structural application to all environmental conditions.

- **UNSURPASSED EM PERFORMANCE**
  The EM impact of all radomes is analyzed and tested across the desired frequency range to ensure that the lowest transmission loss in class is provided.

- **LOW LIFE-CYCLE COST**
  The PTFE coating of SHEERGARD® materials provides superior life-long hydrophobic performance, so no reapplication of surface finish is ever required.

- **PROVEN RELIABILITY**
  Saint-Gobain has been servicing the radome market for 70+ years and has original systems active and fully operational to this day.

- **COMPLETE VERTICAL INTEGRATION**
  SHEERGARD® incorporates vertical integration of all elements in the composite manufacturing process.
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SANDWICH RADOMES

SHEERGARD® sandwich radomes are rigid self-supporting structures designed to protect antenna systems while providing excellent electromagnetic transmission.

Saint-Gobain’s innovative Transonite™ panels incorporate 3D fibers that pass through the sandwich core to prevent panel delamination. These radomes include the permanent PTFE outer surface that eliminate the need of surface maintenance dramatically reducing life-cycle costs.

This advancement to the radome marketplace was developed through the U.S. Air Force’s SBIR program and the technology has successfully completed its Phase 3 requirements.

AIR SUPPORTED RADOMES

SHEERGARD® air supported radomes protect antenna systems while providing the industry’s best electromagnetic transmission performance throughout a broad range of frequencies. Air supported radomes are constructed using PTFE coated, high performance fabrics designed to provide a robust construction that can withstand the toughest environmental conditions. Fully redundant pressurization systems give SHEERGARD® air supported radomes extremely high reliability and long-term durability.

SPECIAL CONFIGURATIONS

Although radomes are often spherical in shape, Saint-Gobain can provide custom design and engineering solutions for the specific needs of each customer.

SHEERGARD® electromagnetic windows are engineered to conceal and protect sensitive communication equipment. They are virtually transparent to electromagnetic energy and are designed to fit any architectural requirements.

COMPOSITES MATERIALS

The SHEERGARD® family of microwave transmissive PTFE composites combines PTFE with specially woven structural fabrics that utilize fiberglass, aramid (Kevlar®) and similar high strength, high temperature resistant yarns. Our composite fabrics are supplied as precut pieces and include any required mounting holes.

INSTALLATION

Saint-Gobain offers worldwide installation support for our SHEERGARD® radome products. These services range from providing technical advisors to full installation crews and include the supply of any required local equipment.

INSPECTION

Saint-Gobain radome experts can provide services to inspect existing radomes. Performing periodic inspections of the system can help obtain maximum reliability and the longest possible life span of the radome.

ANTENNA COVERS

SHEERGARD® antenna covers and shelters are designed to provide protection and concealment for antennas where a conventional spherical radome is not appropriate. Often referred to as ‘planar radomes’, they both prevent the collection of snow, water and ice and reduce the wind load on the mounting structure itself.
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70 YEARS OF EXPERIENCE
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MAINTENANCE
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One of the 100 Most Innovative Companies in the World

Saint-Gobain Presence in 66 Countries

945 Production Sites

8 Major R&D Centers

1 in 4 Saint Gobain Products Sold Today Was Developed in the Last Five Years

Saint-Gobain Performance Plastics

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