TECNO MAGAZINE by TECNOPOL

SPECIAL

INDIA MIDDLE EAST & SOUTH AFRICA

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EMBRACING THE FUTURE: AN OVERVIEW OF INDIA'S BURGEONING CONSTRUCTION SECTOR

India's construction sector is growing rapidly, driven by factors such as an increasing population, urbanization, and a growing economy. The government is also investing heavily in infrastructure development and housing projects, which is further driving demand for construction services. The construction sector in India has grown at a CAGR of around 8% over the past five years.

The government's focus on infrastructure development and housing has been a major driver of growth in the sector. The government's ambitious plans for infrastructure development and affordable housing under the 'Housing for All' and 'Smart Cities' initiatives are expected to drive the demand for construction services.

The residential construction sector is also growing rapidly, driven by a growing middle class, increasing urbanization, and rising disposable incomes. The commercial construction sector is also growing, driven by factors such as the growth of the retail and hospitality sectors, and the increasing demand for office space.

One of the main challenges facing the construction sector in India is the shortage of skilled labor. The lack of proper training facilities and low wages in the construction sector make it difficult to attract and retain skilled workers. Additionally, land acquisition and the lack of efficient and transparent regulatory frameworks can also pose challenges for the construction industry.

DESPITE THESE CHALLENGES, THE INDIAN CONSTRUCTION SECTOR IS EXPECTED TO CONTINUE TO GROW IN THE FUTURE, DRIVEN BY FACTORS SUCH AS:

1. GOVERNMENT INVESTMENT: Government investment in infrastructure development, such as highways, airports, ports, and power plants, is expected to continue to drive growth in the construction sector. The government's ambitious plans for infrastructure development and affordable housing under the 'Housing for All' and 'Smart Cities' initiatives are also expected to drive the demand for construction services in the future.

2. URBANIZATION: With more than 60% of India's population expected to live in urban areas by 2030, urbanization is expected to drive growth in the construction sector. The increasing demand for housing, commercial and retail space, and infrastructure will drive the demand for construction services in urban areas.

3. GROWING ECONOMY: India's economy is expected to continue to grow, which is likely to increase the demand for commercial and residential buildings. The growing middle class and rising disposable incomes are also expected to drive the demand for housing and commercial construction.

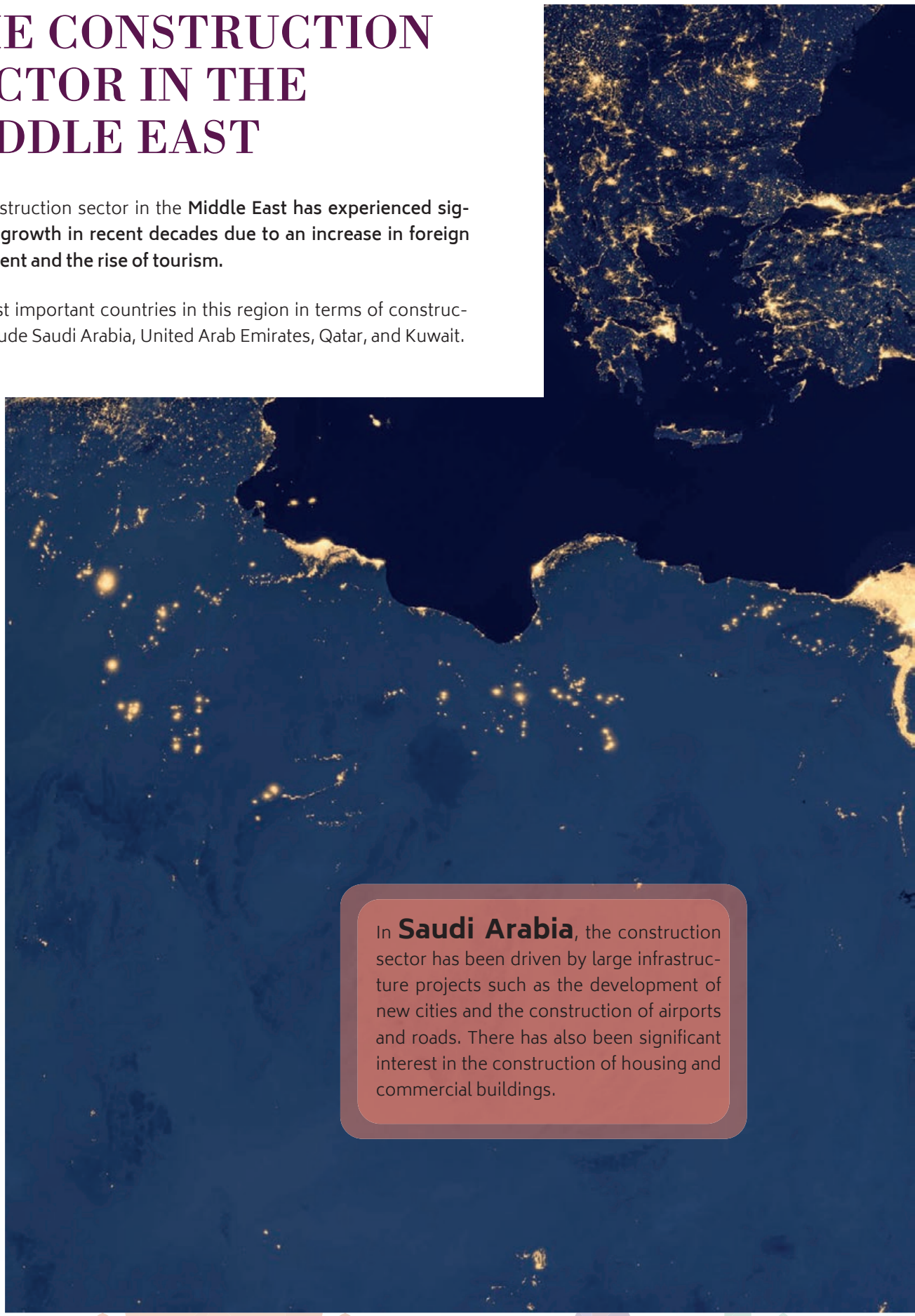
4. SUSTAINABLE CONSTRUCTION: The Indian construction sector is starting to adopt sustainable practices and green building technologies, this is expected to increase the demand for more energy-efficient, sustainable, and eco-friendly construction methods and materials.

5. DIGITALIZATION AND AUTOMATION: The construction sector is expected to adopt more digital and automation technologies, such as Building Information Modeling (BIM), construction management software, and drones. This will help to improve the efficiency, accuracy, and safety of construction projects, and also increase the productivity of the industry.

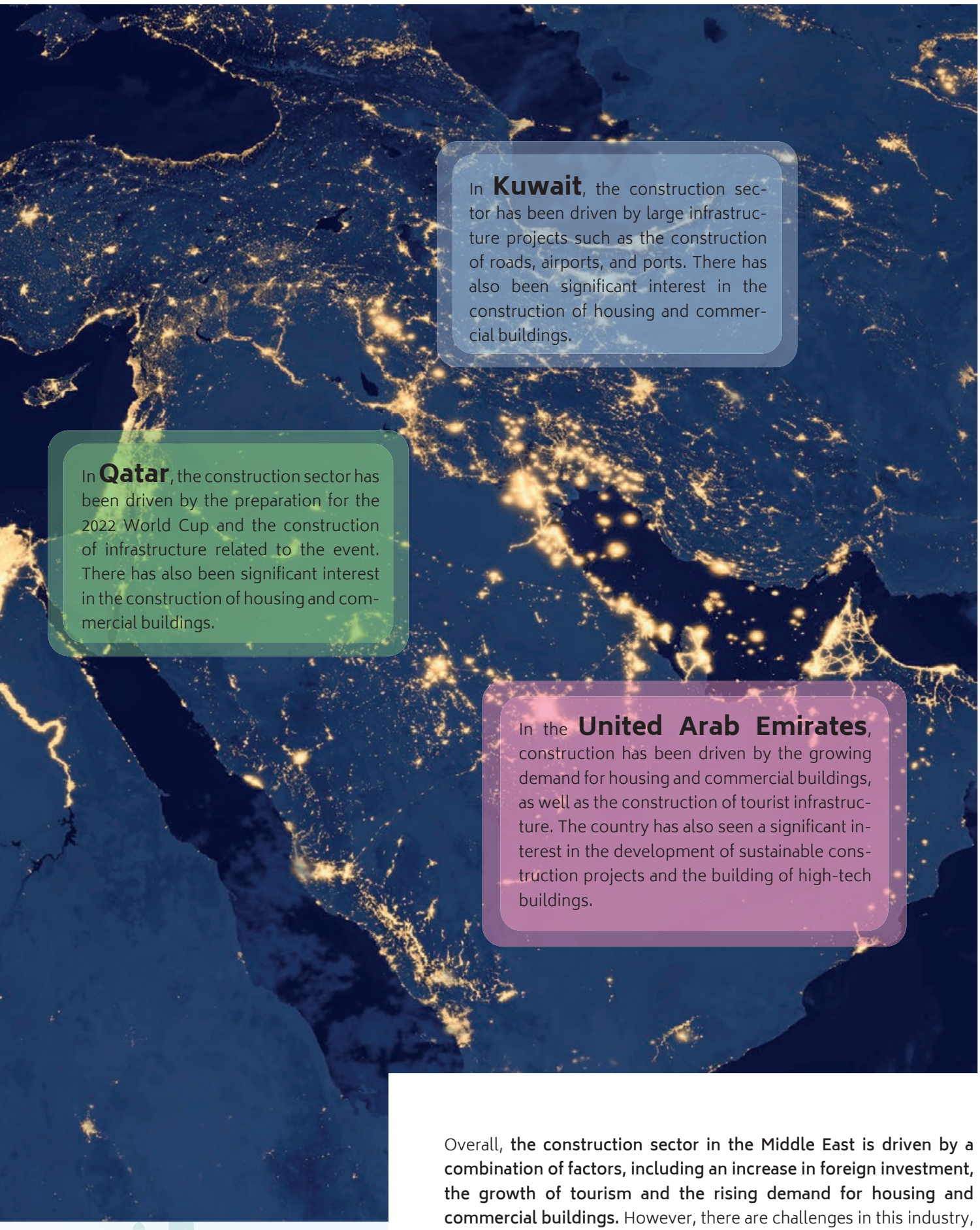
THE CONSTRUCTION SECTOR IN THE MIDDLE EAST

The construction sector in the **Middle East has experienced significant growth in recent decades due to an increase in foreign investment and the rise of tourism.**

The most important countries in this region in terms of construction include Saudi Arabia, United Arab Emirates, Qatar, and Kuwait.



In **Saudi Arabia**, the construction sector has been driven by large infrastructure projects such as the development of new cities and the construction of airports and roads. There has also been significant interest in the construction of housing and commercial buildings.



In **Kuwait**, the construction sector has been driven by large infrastructure projects such as the construction of roads, airports, and ports. There has also been significant interest in the construction of housing and commercial buildings.

In **Qatar**, the construction sector has been driven by the preparation for the 2022 World Cup and the construction of infrastructure related to the event. There has also been significant interest in the construction of housing and commercial buildings.

In the **United Arab Emirates**, construction has been driven by the growing demand for housing and commercial buildings, as well as the construction of tourist infrastructure. The country has also seen a significant interest in the development of sustainable construction projects and the building of high-tech buildings.

Overall, **the construction sector in the Middle East is driven by a combination of factors, including an increase in foreign investment, the growth of tourism and the rising demand for housing and commercial buildings.** However, there are challenges in this industry, including a shortage of skilled labor and a lack of adequate safety measures in some places.

THE CONSTRUCTION SECTOR GROWING IN SOUTH AFRICA

THE CONSTRUCTION SECTOR IN SOUTH AFRICA HAS EXPERIENCED A NUMBER OF UPS AND DOWNS IN RECENT DECADES, WITH A RECOVERY IN RECENT YEARS.

The government has announced ambitious plans to improve the country's infrastructure, which has driven growth in the construction of roads, airports, and housing. Additionally, tourism and mining have also been an important driver for the construction sector's growth. The construction sector in South Africa has begun to recover in recent years.

The government has announced plans to invest in infrastructure and improve efficiency in contract awarding, and there has been an increase in foreign investment in the sector. These factors suggest that the construction sector in South Africa may experience sustained growth in the future.

1 BRIDGES AND TUNNELS, A STRONG COMMITMENT

The construction of bridges and tunnels in **South Africa** has experienced some growth in recent years, driven by the government's infrastructure development plans and private sector investment.

In recent years, the government has announced **plans to invest in the construction of new bridges and the upgrading of existing ones,** particularly in urban areas. This includes the construction of the Mbashe Bridge, which will connect the Eastern Cape to the rest of the country, and the upgrading of the Nelson Mandela Bridge in Johannesburg.

In addition to government projects, there has also been private sector investment in the construction of bridges and tunnels. For example, the private sector is funding the construction of the Maputo-Katembe Bridge, which will link Maputo, Mozambique to the Katembe peninsula in South Africa, and is set to be the longest cable-stayed bridge in Africa when completed.

In general, the construction of bridges and tunnels in South Africa is expected to continue growing in the future, driven by government investment and private sector participation.

3 MAIN WATERPROOFING PROJECTS PLANNED

• The construction of the Ingula hydroelectric power station in the KwaZulu-Natal province, which **requires waterproofing of the dam and water conveyance tunnels.**

• The development of the Waterfall City area in Johannesburg, which includes the construction of residential and commercial buildings **and requires waterproofing of the building's terraces and roofs.**

• The construction of new airports in Cape Town and Durban, **which requires waterproofing of the airport runways and terminals.**

• The construction of new transport tunnels in Johannesburg and Cape Town, **which requires waterproofing of the tunnel walls and roofs to protect them from water infiltration.**

Overall, the waterproofing sector in South Africa is driven by a combination of factors, including an increase in infrastructure investment and the growing demand for housing and commercial buildings.

2 THE FUTURE OF THE WATERPROOFING INDUSTRY

The **waterproofing sector in South Africa is an important industry**, as it helps to protect buildings and structures from water and moisture infiltration. There are several specialized waterproofing companies in the country that offer services for different types of projects, from residential buildings to commercial and transportation infrastructure.

The incorporation of advanced technologies and innovations such as the liquid membranes will give to these industries the tools to get and participate in projects with high technical requirments. The improvement of the teams with the correct training will be one of the keys of the success of this exciting journey.

ABBILASH JOSE

TECNOPOL REGIONAL HEAD FOR INDIA, MIDDLE EAST AND AFRICA (SOUTH & EAST)

1. Do you think that the construction sector is very familiar with the applications of products such as polyurea?

It depends on the countries or regions we deal with . When the middle east market is taken to consideration the answer is of course yes .construciton sector is very familiar with polyurea . But when we take the case of asian or african markets still we need to put more efforts to get the polyurea applications in the construction sector.

2. Buildings have to be more coefficient due to climate change, is this factor taken into account in new projects?

Yes of cource . Currenlty we are facing a big challenge with the global warming and it has beed an inconsistency in the weather conditions has been observed over past few years. Say for expample when it is summer it goes on the extreme so as the case in winter. Hence in this case it is very important to add the prodcuts which can control these factors like our thermal insulatons using foam, polyureas and UV reflective polyurethane coatings.

3. Regulations and certifications change from country to country, is this an obstacle or an advantage?

In my opinion it is an advantage if your company is focusing more on certifications oriented jobs since tecnopol has most of the certifications which can be used globally and as our products are universal it seems easier to get the approvals. nevertheless there are certain cases where we face some issues and extra lags due to the regulations and demands of other certifications of those specific countries . say for example in india we are still waiting some certifications to introduce our systems in the bridge decks protective and waterproofing even we have eurpoean and british approvals with the experience of job done in spain and namibia .

4. What is the current state of the Indian construction industry?

The construction industry in India is currently in a period of robust growth. The government

BIO

With over 15 years of experience in the construction and waterproofing industry, ABBILASH JOSE joined **TECNOPOL** in 2015 with the goal of selling polyurea and polyurethane worldwide.

Abbilash is currently head of sales for the India, Middle East and East and Southern Africa regions. In addition to leading the sales activities in these regions, he is personally responsible for monitoring and providing technical advice on the works and projects for which he is in charge. This proximity to the customer and constant on-site advice is part of his success in the region, the key to his constant growth in results.

To date, he has exceeded expectations in the region by delivering various waterproofing projects to **TECNOPOL** and continues to see growth in numbers.

is investing heavily in infrastructure development and housing, which is driving demand for construction services. Additionally, the growing economy is leading to increased demand for commercial and residential buildings.

5. What are some of the major drivers of the Indian construction industry?

Some of the major drivers of the Indian construction industry include government investment in infrastructure, rapid urbanization, and growth in the real estate and housing sector. Additionally, the construction industry is also being supported by a growing number of public-private partnerships and the increased use of modern construction techniques and materials.

6. What are some of the main challenges facing the Indian construction industry?

Some of the main challenges facing the Indian construction industry include a shortage of skilled labor, difficulties with land acquisition, and a lack of efficient and transparent regulatory frameworks. Additionally, environmental concerns, and delays in obtaining approvals and clearances can also be a challenge for the industry.

7. What are some of the most significant infrastructure projects under construction in India?

Some of the most significant infrastructure projects under construction in India include the Mumbai-Ahmedabad High-Speed Rail project, the Bharatmala project, the Sagar Mala project, the Delhi-Mumbai Industrial Corridor and the Pradhan Mantri Gram Sadak Yojana.

8. What are the potential future opportunities for the Indian construction industry?

In the future, the Indian construction industry is likely to see continued growth as a result of government investment in infrastructure, as well as increased demand for commercial and residential buildings.

It's worth noting that despite the many opportunities, the Indian construction industry also faces significant challenges such as lack of standardization, lack of proper planning, fragmented market and the unorganized sector.

9. How do you stay current with industry trends and changes?

I stay current with industry trends and changes by regularly attending industry events and conferences, reading trade publications, and networking with other sales professionals in my field. I also make sure to stay up-to-date on changes within my company, as well as any changes to regulations or standards that could impact our sales efforts.

10. How do you handle and overcome objections during the sales process?

I handle objections by actively listening to the customer's concerns, acknowledging and validating their concerns, addressing them with specific and relevant information and highlighting the benefits of my product or service. I look for ways to overcome objections by finding common ground and highlighting the ways in which my product or service can meet their needs. If the objection can't be overcome, I'll look for an alternative solution or find out if the customer's needs can be met in another way.

OUR PRESENCE IN MIDDLE EAST AND INDIA

QATAR ELECTRICITY & WATER CO.

3.000 sqm and 6 tanks
1 TECNOCOAT P-2049 | 2 PRIMER 1070

ANGRY BIRDS WORLD THEME PARK - QATAR

6.000 sqm.
1 PRIMER 1050 | 2 TECNOCOAT P-2049 | 3 TECNOTOP 2CP

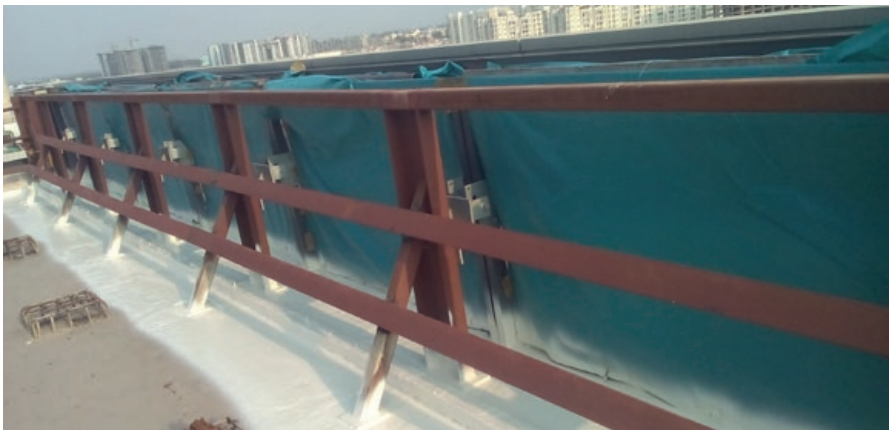
TATA- KOLKATA (INDIA)

20.000 sqm.
1 PRIMER PU 1050 | 2 TECNOCOAT P2049



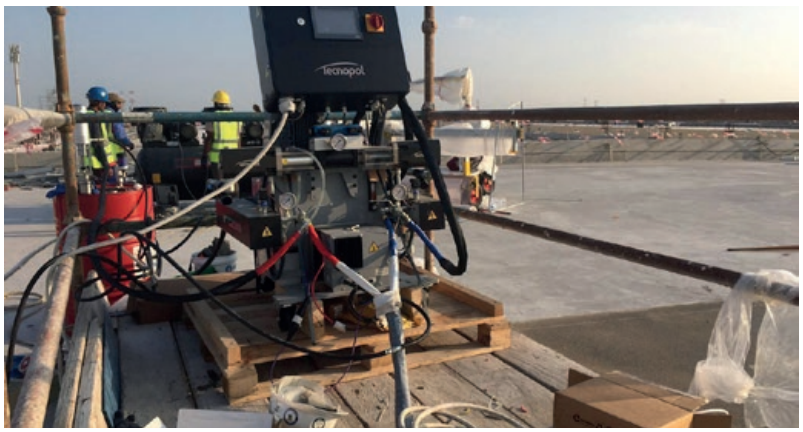
INTEL- BANGALORE (INDIA)

6.000 sqm.
1 PRIMER 1050 | 2 TECNOCOAT P-2049 | 3 TECNOTOP 2C

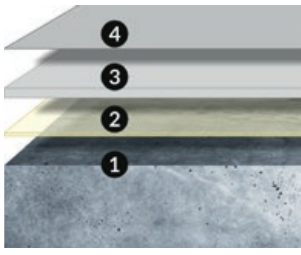




QATAR'S LARGEST PROJECT: ROOF WATERPROOFING

120.000 sqm.
1 PRIMER PU-1050 | 2 TECNOCOAT H-2049 | 3 TECNOTOP 2C



CASE STUDY DELHI METRO



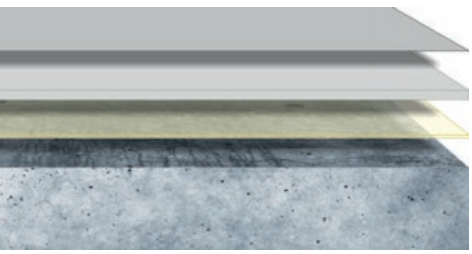
DESCRIPTION OF THE EXECUTION

Infrastructure of Delhi metro corporation

± 50.000 sqm / Waterproofing / DESMOPOL system

DESMOPOL has been applied on approximately 50,000 sqm in 4 substructure stations basement walls indoor and outdoor areas.

The **TECNOPOL** system scheme applied in this case to obtain an optimum waterproofing on concrete slabs was as follows:



1. Concrete cover
2. **PRIMER PU-1050**,polyurethane resin
3. **DESMOPOL**, polyurethane liquid waterproofing membrane
4. **TECNOTOP 2C,** aliphatic protection

LIQUID WATERPROOFING

WE OFFER YOU THE PERFECT, TESTED AND CERTIFIED SOLUTION FOR ANY PROJECT TYPE.

PURE POLYUREA

HOT-SPRAY

tecnocoat P-2049

Designed to provide maximum protection and durability for large projects.

- WATERPROOFING PASSABLE ROOFS ETE 11/0357
- WATERPROOFING BRIDGE DECK ETE 21/0942
- WATERPROOFING PASSABLE ROOFS BBA 16/5340
- WATERPROOFING PASSABLE ROOFS AVIS TECHNIQUE 19.2665
- ENVIRONMENTAL CONSTRUCTION PRODUCTS DECLARATIONS
- STANDARD TESTS INTERNATIONAL US MARKET

HYBRID POLYUREA

HOT-SPRAY

tecnocoat H-2049

Designed for small and large projects, whatever the field of action.

- WATERPROOFING PASSABLE ROOFS ETE 20/0263
- STANDARD TESTS INTERNATIONAL US MARKET

Tecnopol®

www.tecnopolgroup.com

COLD POLYUREA

HAND APPLIED

tecnocoat CP-2049

For projects with high technical requirements where the use of projection equipment is not possible.

WATERPROOFING
PASSABLE ROOFS
ETE 20/0253

POLIURETHANE

SINGLE COMPONENT

desmopol PU

The most versatile of the entire range, for any project whatever its typology and requirements.

WATERPROOFING
PASSABLE ROOFS
ETE 10/0121

WATERPROOFING
BRIDGE DECK
ETE 21/0734

WATERPROOFING
PASSABLE ROOFS
BBA 16/5340

STANDARD TESTS
INTERNATIONAL
US MARKET

ENVIRONMENTAL
CONSTRUCTION PRODUCTS
DECLARATIONS

INTRODUCING
TECNOFOAM G-2008 PLUS
A LOW DENSITY WATER-BASED POLYURETHANE INSULATION FOR THERMAL INSULATION IN BUILDINGS AND INDUSTRY.

TECNOFOAM G-2008 PLUS is water-based, one of the main advantages of water-based polyurethane foam is that it is safer and more environmentally friendly than traditional polyurethane foams.

Because it does not contain volatile chemicals, it does not emit toxic gases and does not require special safety measures during application. In addition, water-based polyurethane foam has excellent thermal and acoustic insulation properties. It is very efficient in reducing noise and heat transmission, and helps to improve comfort in the home.

On the other hand, low-density polyurethane insulation is an increasingly popular option for improving the energy efficiency of homes and has many advantages, such as its high thermal insulation capacity.

This type of insulation has a very low thermal conductivity coefficient, which means that it prevents heat from seeping through the walls. This can help to significantly reduce heating and cooling costs and improve comfort in the home.

Foam developed for thermal insulation and acoustic conditioning of residential buildings. Suitable for walls and under decks. Provides maximum coverage of wooden structures and beams. In addition, **TECNOFOAM G-2008 PLUS** is very light and easy to install.

Technical data sheet

Applied density	± 8 kg/m³
Thermal conductivity	0,038 W/m·K
Cream time	2~6 seconds
Gel time	6~10 seconds
Drying time to touch	10~14 seconds
Reaction to fire	Euroclasss E
Closed cell content	<20% (CCC1)
Method of application	Dispensing equipment

tecnofoam G-2008 / PLUS / H2O

Another advantage of **TECNOFOAM G-2008 PLUS** low density polyurethane insulation is that it is very efficient from an environmental point of view.

It does not contain CFCs and HCFCs, chemical compounds that are harmful to the environment. For this reason, it is also recommended for sustainable construction projects. In summary, **TECNOFOAM G-2008 PLUS** is an excellent option for improving the energy efficiency of homes. It is easy to install, has excellent thermal insulation capacity and is environmentally friendly.

Its higher energy efficiency and greater durability make its use profitable in the short and long term.

MAXIMIZING ENERGY SAVINGS WITH SPRAY FOAM INSULATION

Spray foam insulation is an effective way to reduce energy costs and increase the energy efficiency of a home. It is a versatile insulation product that is easy to install and has many advantages over traditional insulation.

When sprayed onto surfaces, the foam expands and hardens, creating a tight, airtight seal that can help to reduce the amount of heat loss through walls, roofs, and other building components.

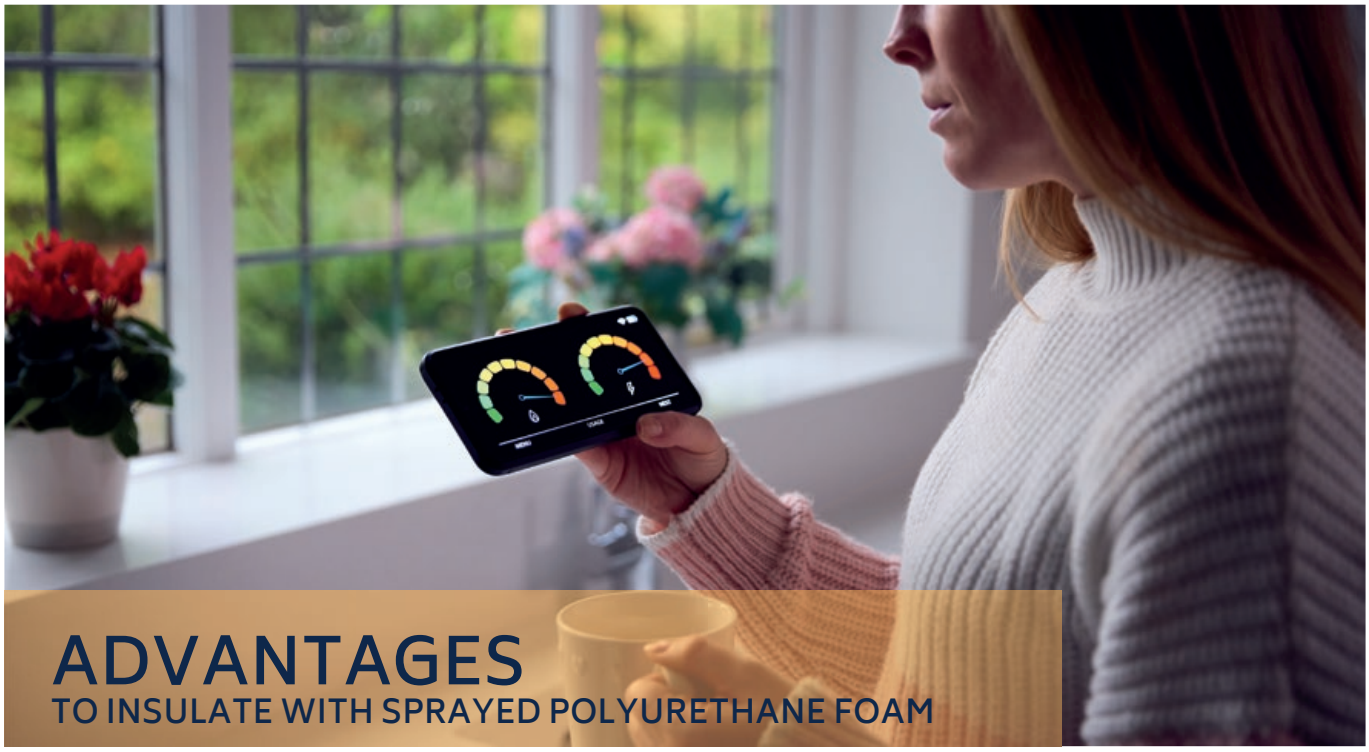
One of the main advantages of using polyurethane spray foam for insulation is its ability to fill small cracks, crevices, and other gaps that can occur in building construction.

This creates an airtight barrier that can prevent drafts and keep out dust, pollen, and other pollutants.

Another advantage of using polyurethane spray foam insulation is its high R-value. R-value is a measure of a material's ability to resist heat flow, with higher R-values indicating better insulation. Spray foam insulation has a higher R-value per inch than most other types of insulation, making it more effective at preventing heat loss. When used to insulate walls and roofs, spray foam insulation can help to reduce heating and cooling costs by as much as 50%. It can also improve the overall comfort of a building by reducing drafts and uneven temperatures. Furthermore, spray foam insulation can also help to reduce the amount of moisture and humidity in a building, which can prevent the growth of mold and mildew.

In addition, spray foam insulation can also help reduce the amount of moisture in a building, which can prevent mold and mildew.

It's worth noting that polyurethane spray foam insulation is a professional job and should be installed by a professional contractor, also proper ventilation and air movement is needed for best results, poor air sealing and poor air quality are often related.



ADVANTAGES
TO INSULATE WITH SPRAYED POLYURETHANE FOAM

1

HIGH R-VALUE:
Spray foam insulation has a higher R-value than most other types of insulation, making it more effective at preventing heat loss.

2

AIR-SEALING:
Spray foam insulation creates an airtight barrier that can prevent drafts and keep out dust, pollen, and other pollutants. It can fill small cracks, crevices, and other gaps that can occur in building construction.

3

DURABILITY:
Spray foam insulation is extremely durable and can last for decades, it can withstand the demands of constant heavy traffic and equipment movement.

4

MOISTURE RESISTANCE:
Spray foam insulation is also highly resistant to moisture and can help to prevent the growth of mold and mildew.

WHAT IS THE LAMBDA VALUE?

The lambda value (λ) of a material is a measure of its thermal conductivity, which is the ability of a material to transfer heat. The lower the lambda value, the lower the thermal conductivity and the better the insulating performance of the material.

The lambda value of polyurethane spray foam insulation varies depending on the foam formulation, but generally has a low thermal conductivity of about 0.023 W/mK, making it an effective insulating material. Some formulations can have even lower lambda values, such as 0.022 W/mK, making it one of the most effective insulating materials available.This low thermal conductivity means that spray polyurethane foam insulation can help reduce heat loss through walls, roofs and other building components, which can help improve a building's energy efficiency. The insulation is spray-applied and quickly forms a rigid, seamless barrier that can help keep heat in and cold out, reducing heating and cooling demand.

It is worth noting that thermal conductivity is affected by the density of the foam, higher density foams will have a lower lambda value and better insulation performance, the lambda value of a foam can also change over time, but is generally considered to have a relatively stable thermal conductivity over the long term.

AVAILABLE TECNOPOL PRESTO AND FIEDBC/BC3 CATALOGUES

The PRESTO and FIEDBC/BC3 catalogs are tools used in the construction industry for project management and specification of construction materials and products. Although they share certain similarities, they have different approaches and functionalities. PRESTO is a budgeting and project management software primarily used in Spain and other Spanish-speaking countries. The software includes a catalog of construction materials and products that allows users to specify and select the necessary elements for a construction project and calculate its cost. On the other hand, FIEDBC/BC3 is a technological platform for the management of the life cycle of buildings and infrastructure. This platform includes a project management tool, as well as a catalog of construction materials and products. The FIEDBC /BC3 catalog provides technical information and prices of products and systems used in construction, as well as a cost comparison tool. In summary, PRESTO is a budgeting and project management software with a catalog of construction materials and products, while FIEDBC/BC3 is a technological platform that includes a project management tool and a catalog of construction materials and products. Both are useful tools for construction professionals, but they have different approaches and functionalities.

www.tecnopolgroup.com/downloads/presto-and-fiebdc

INTRODUCING THE LATEST IN WATERPROOFING TECHNOLOGY

Our strongest and most durable OS10 car park waterproofing solution to date.

TECNOPOL has developed a new waterproofing system based on **TECNOCOAT P-2049** pure polyurea membrane to be used for the protecting road surfaces from heavy traffic.

The system has recently been tested and approved with the OS10 seal, in accordance with the German Concrete Protection and Repair Standard.

The new waterproofing system for road traffic surfaces is excellent at bridging cracks and cures extremely quickly, with surfaces being ready for use in just 24 hours. The combination of **TECNOCOAT P-2049** polyurea with the **TECNOTOP S-3000** aliphatic coating based on manually applied pure polyurea, makes the system an excellent comprehensive coating that offers elastic and durable waterproofing, while offering exceptional crack bridging and zero surface wear, which are the primary requirements for this type of intensive use.

TECNOPOL's new OS10 rated system is therefore ideal for car park roofs, especially those exposed to the elements or susceptible to cracking, or areas that undergo heavy use, such as large shopping malls or industrial sites.

1 **Primer:**
PRIMER EP-1010
two-component epoxy resin
(0.3mm)

2 **Waterproofing:**
TECNOCOAT P-2049
pure polyurea (3.2mm)

3 **Anti-slip finish:**
TECNOTOP S-3000
fast curing two-component
aliphatic polyaspartic with
SILICA SAND

When it comes to constructing or repairing underground or multi-level car parks, the main concerns are for the reinforced concrete to be sufficiently protected against chloride and moisture penetration, and for all cracks, gaps and joints to be fully watertight. In addition to the need for robust and durable solutions, when it comes to refurbishment, there is also the need for minimal interference and downtime, so that the car park can be up and running again quickly.

TECNOPOL's recently tested and certified multilayer surface protection system OS10 meets all these requirements.

WATERPROOF, RESISTANT, FAST AND EXCELLENT CRACK BRIDGING

A fast application and drying system with excellent results, ready in only 3 coats and with a total dry film thickness of only 4.6 mm.

This OS10 system has undergone all the necessary testing to obtain this certification, including very demanding tests such as tensile strength, displacement resistance, crack bridging, parking abrasion wear, etc., obtaining excellent results in all of them:

Tensile strength of the joint (pull-out test): The tensile strength was tested in accordance with DIN EN 1542, with an average result of 3.6 MPa, more than double the required average value (1.5 MPa).

Tensile bond strength after thermal cycling with de-icing salt immersion: As with the previous test, the result is highly impressive, obtaining an average value of 3.1 MPa (required average value 1.5 MPa). **Skid resistance:** The values obtained in this test range from 41 Skt before use of the system, to 60 Skt after use and wear. The values are within OS10 parameters.

Dynamic crack bridging: After testing, no cracks were observed on the surface and the membrane remained completely intact over cracks with an expansion width of 22, 32.5 and 33 mm.

Abrasion in car parks: After 15,000 rotation cycles on the surface by a tyre loaded with a 500 kg weight, the abrasion result was classified as VK1 (very low wear), the best possible classification that can be obtained in this type of test, demonstrating that this system offers maximum resistance to abrasion.

All these tests confirm the exceptional hardness and resistance of **TECNOPOL's** OS10 system, guaranteeing a long service life. They also demonstrate its suitability for the construction or repair of parking or vehicular traffic surfaces, in short, any parking roof that is susceptible to cracking.

The **TECNOTOP S-3000** aliphatic polyurea finish also makes this system totally resistant to ultraviolet radiation, so it can be applied on any surface, whether covered or outdoors.

None of the products in the system contain solvents, which means it is even suitable for use indoors, with zero environmental impact.

The system is suitable for use in a wide range of climates, as it can be used in temperatures between 5 and 35 degrees Celsius and in environments with a relative humidity of up to 85%.

All in all, the **TECNOPOL P-2049** system with OS10 certification offers exceptional performance, high strength and safety, and easy application with zero margin of error, and the drying time is exceptionally fast, so it is ready for a full traffic load in just a few hours.

This factor also minimises the amount of time that the car park is out of operation, saving time and money for all parties involved.

Epoxy Resin floors

Epoxy resin is a type of synthetic polymer that is made from a combination of epoxide and polyamine compounds. When mixed together and applied as a coating, epoxy resin creates a hard, durable surface that is resistant to a wide range of chemicals, impact and abrasion.

Epoxy resin floors also have a wide range of other applications, such as:

- **Food processing:** Epoxy resin floors create a fungistatic surface, that is, they prevent the proliferation of bacteria. They are also resistant to stains and cleaning chemicals.

- **Pharmaceutical industry:** Epoxy resin floors provide a smooth and easy-to-clean surface that is resistant to chemical spills and the proliferation of bacteria and fungi.

- **Hospitals, laboratories, and medical facilities:** In addition to the characteristics of the pharmaceutical application, epoxy resin floors also have the property of reducing the potential for transfer of contaminants such as bacteria and viruses from one surface or substance to another (cross-contamination).

- **Retailers, supermarkets, and convenience stores:** The wide variety of colors and resistance make them the ideal flooring for this type of application. They help prevent cross-contamination by preventing the proliferation of bacteria between surfaces, a fundamental aspect in the food industry.

Epoxy resin floors can also be used in residential settings, such as in garages and basements, to create a durable and easy-to-clean surface.

It's worth noting that, the surface preparation is critical to a successful epoxy flooring installation. Any imperfections or contaminants on the surface can lead to adhesion failure and other problems. A professional contractor with experience installing epoxy floors is recommended for best results.

Industrial buildings application

Epoxy resin floors are widely used in industrial buildings for their durability and chemical resistance. They are commonly used in factories, warehouses, and other industrial facilities where heavy foot and vehicle traffic are expected.

Some advantages of epoxy resin floorsinindustrialsettingsinclude:

- **Durability:** Epoxy resin floors are extremely hard and resistant to impact, abrasion, and heavy loads. They can withstand the demands of constant heavy traffic and equipment movement, making them ideal for areas with heavy equipment or forklifts.

- **Chemical resistance:** Epoxy resin floors are resistant to a wide range of chemicals, acids, and solvents. This makes them well-suited for industrial settings where chemicals are used or stored.

- **Slip-resistance:** Epoxy resin floors can be formulated to be slip-resistant, making them safer to walk on, even in wet or oily conditions.

- **Easy to clean and maintain:** Epoxy resin floors are smooth and non-porous, making them easy to clean and maintain. They do not require regular waxing or polishing, and they can be easily sanitized.

- **Aesthetics:** Epoxy resin floors can be customized with different colors, patterns, and designs, which can help to create a more pleasant working environment and improve productivity.

- **Seamless:** Epoxy resin floors can be applied in a seamless, monolithic membrane that eliminates the potential for water and chemical infiltration through seams or joints.

- **Conductive :** With a specialized formulation and surface preparation epoxy resin floors can be conductive and used in sensitive electronic environments

It's worth noting that, Epoxy resin floors are not suitable for exterior use or for areas subject to freeze-thaw cycles. They are also not suitable for areas with high thermal shock and areas with significant temperature fluctuation.

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