

# Corroding Corrosion So You Can Stay Up and Running

## GUADALAJARA, JALISCO, MEXICO

IBM uses data centers all over the world to store and process data for its customers, making them incredibly valuable to the business. A server testing lab even tests every single server that IBM builds for three to six months to ensure that they won't fail in real-world applications. As new servers were failing for no explainable reason, IBM enlisted Purafil to determine the source of the problem and protect one of their most valuable assets.

To address the issue at hand, Purafil installed Corrosion Classification Coupons (CCC), which allowed for a more complete picture of what was going on. We also learned that the Salto area in Guadalajara has high levels of air pollution and airborne corrosive contaminants, which can wreak havoc on critical equipment. The coupons confirmed this by diagnosing a GX air quality level in the manufacturing lab as per ISA71.04-2013. A GX level is the most severe classification and means that electronic equipment cannot survive the environment.

**Purafil installed Puragrids to reach G1 levels where corrosion is no longer a factor.** It was crucial to safeguard the lab as the rest of the facility was at G3 levels (a harsh environment for electronics and equipment) due to pollution. After a successful installation here, IBM choose to utilize Purafil again when constructing the new data center to prevent corrosion. We installed two Purafil Side Access (PSA) units with our Puracarb media. With these systems, we were able to neutralize a highly corrosive environment. **Our solution has brought the level down to G1, thus safeguarding the data center. As a result, this location hasn't experienced any equipment failure due to corrosion or business downtime.**



# Indian Datacenter Stops Equipment Failures with Purafil

## NOIDA, UTTAR PRADESH INDIA

India's largest telecom company offering wireless broadband, mobile phone, and satellite services throughout Asia. In 2015, they built India's first Open Network, giving customers access to tower maps, weak spots, strong signal zones, high speed internet and more.

This telecom provider is based in Noida, India which is surrounded by open sewer systems carrying unwanted waste, releasing toxic and unpleasant gases. The environmental conditions in India do not only pose odor and health concerns, but release gaseous pollutants including Hydrogen Sulfide (H<sub>2</sub>S), Sulfur Dioxide (SO<sub>2</sub>) and Methane (CH<sub>4</sub>), that cause destructive corrosion on electronics. These harmful gases can enter the building through gaps and fresh air openings. Over 90% of all corrosion assessments performed by Purafil in India have shown a severe or harsh corrosive environment caused by high levels of H<sub>2</sub>S, SO<sub>2</sub> and Chlorine (Cl<sub>2</sub>).

A major OEM customer for electronics notified them of critical electronic card failures due to corrosion and suggested the IT Manager call Purafil for a solution. After analyzing the datacenter environment, it was determined that sulfur contaminants were entering the mobile switch center and network room. Purafil recommended a complete solution to clean and pressurize the controlled space. Using Positive Pressurization Units (PPU) and PuraGrid filters, the corrosive GX environment was protected, and the air was cleaned to a sustainable G1 environment, safe from corrosion. The OnGuard corrosion monitor was also installed to provide real-time data on the air quality, and ensure that the clean air atmosphere was maintained.

**Since installing the complete Purafil solution, electronics failure has been eliminated**, and they continue to maintain an G1 environment as classified by the International Society of Automation (ISA) Standard 71.04-2013 "Environmental Equipment Conditions for Process Management and Control Systems: Airborne Contaminants" (which is the accepted guide for warranties of electronic equipment.). This ensures that corrosion is no longer a factor in this Telecom's ability to support their customers, and ensure uninterrupted service provided by their critical electronic equipment. **That's the Purafil Peace of Mind.**

