LBA Group's CPC-54 RF Shielding Paint Helps Mitigate RF Interference Challenges

Overview:

LBA Group, a trusted company with over 60 years of experience in RF technology, successfully resolved various RF interference challenges faced by different industries through the implementation of the innovative CPC-54 RF Shielding Paint. This case study highlights three specific applications where the CPC-54 paint proved to be an effective and cost-efficient solution.

The Challenge:

- Manufacturing Machine RF Interference:

A manufacturing company experienced RF frequency interference from their machinery, which disrupted cell reception outside their building, violating FCC regulations.

- Data Center Applications:

Data centers faced the challenge of unwanted interference entering the facility and adjacent office areas, causing disruptions and potential damage to sensitive equipment.

- SCIF (Sensitive Compartmented Information Facility) Room Design:

Government requirements for shielding and securing SCIF areas needed to be met in a cost-effective manner.

The Solution:

- Manufacturing Machine RF Interference:

LBA Group’s recommendation is the CPC-54 RF Shielding Paint, a high-performance paint suitable for interior and exterior use, with up to 90 dB shielding performance at 40 GHz. The paint's high adhesive tensile strength allowed for application on difficult substrates like drywall. With its easy application and compatibility with decorative paint, the CPC-54 paint effectively mitigated the RF interference, surpassing FCC requirements.

- Data Center Applications:

With the application of CPC-54 RF Shielding Paint as recommended by LBA Group, data centers experienced improved performance and protection against RF interference. The paint effectively shielded the facility, preventing RF noise from impacting adjacent office areas and compromising sensitive equipment. This recommendation ensured uninterrupted operations and safeguarded valuable data.

- SCIF Room Design:

LBA Group recommended using the CPC-54 paint as a versatile and cost-effective solution for shielding and securing SCIF areas. With its high screening attenuation capabilities, including up to 90 dB at 40 GHz, the paint provided the required level of shielding while eliminating the need for expensive foil shielding. Its precise blending, easy application, and compatibility with decorative paint allowed for a seamless integration into the SCIF room design.

The Result:

- Manufacturing Machine RF Interference:

The application of CPC-54 RF Shielding Paint on the walls and ceiling successfully mitigated the interference, surpassing FCC requirements and ensuring uninterrupted cell reception outside the building. The paint's reliable performance provided a long-term solution for maintaining RF integrity.

- Data Center Applications:

The implementation of the CPC-54 paint shielded data center facilities, preventing interference, and maintaining the integrity of sensitive equipment. It also prevented RF noise from impacting adjacent office areas, enhancing overall operational efficiency, and protecting valuable data.

- SCIF Room Design:

Utilizing the CPC-54 paint for SCIF areas offered a versatile and cost-effective solution, meeting Government requirements for shielding and securing the sensitive space. The paint's high screening attenuation capabilities and easy application process made it an optimal choice for achieving the desired level of shielding.

Conclusion:

LBA Group's CPC-54 RF Shielding Paint proved to be a versatile and effective solution for mitigating RF interference in various applications. With its high-performance shielding capabilities, compatibility with different substrates, and easy application methods, the CPC-54 paint provides reliable and cost-efficient protection against unwanted RF signals. By addressing RF challenges in manufacturing, data center, and SCIF room environments, the CPC-54 paint ensures optimal performance and safeguards sensitive equipment. For more information about the CPC-54 RF Shielding Paint, including its specifications and availability, please contact us at lbagrp@lbagroup.com or 252.757.0279. You can also purchase the CPC 54 RF Shielding Paint directly from the LBA One Source website.