

Orchestrating Laser Screed Flooring for Redtape Ltd. Green Field Project in Unnao (UP)



Client's Vision :

As a frontrunner in the footwear industry, Redtape Limited is renowned for its uncompromising pursuit of quality and innovation. Embarking on a green field project in Unnao, Uttar Pradesh, their aspiration was to establish a manufacturing facility with flooring that epitomized global standards, in harmony with their commitment to excellence.



Our Collaborative Symphony:

At the helm of this endeavour, we were entrusted with the responsibility of translating Redtape Ltd. vision into reality. This collaborative symphony comprised two key movements: crafting Laser Screed Flooring aligned with FM2 standards from TR-34 4th Edition by The UK Concrete Society for an expanse of 35,000 m² and orchestrating a meticulous 5-step concrete polishing journey over a sprawling 50,000 m² area.

The primary challenge was to deliver the stringent global standards of FM2 from TR-34 4th Edition. Utilizing state-of-the-art Laser Screed Machine S-158 C from Somero USA delivering an area of 700 to 900 m² per day effectively and ensuring accurate results. And, the 5-step concrete polishing process had to deliver both aesthetics and durability.

Laser Screed Flooring (Application):

The Somero S-158 C Laser Screed Machine, known for its precision, was employed to distribute and level the concrete mix accurately. This eliminated

the need for manual intervention and minimized human error.

Quality Control: Throughout the process, quality checks were performed to ensure that the FM2 standards were being met. Laser technology and specialized measuring tools were used to validate flatness and levelness.

Concrete Polishing:

We executed the 5-step concrete polishing process for the vast 50,000 m² area:

Coarse Grinding: The initial grinding phase removed any surface imperfections and inconsistencies, creating a uniform canvas.

Fine Grinding: This step further refined the surface, ensuring a smooth and level base for subsequent polishing.



Application Of Liquid Densifier: During the polishing process, a liquid densifier is spread on the prepared surface and continuously moves with the help of a brush and wipers for 20 to 30 minutes. Hence, the densifier penetrates inside the surface. The excess densifier is removed & the floor is left overnight for the curing process. It not only protects the concrete from the inside but also hardens and densifies the concrete.

Honing: The honing process enhanced the surface's sheen while preparing it for the final polishing stages.

Polishing: Multiple polishing steps were undertaken to achieve the desired gloss and finish. Each step utilized finer



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abrasives, progressively enhancing the surface's aesthetics.

we successfully accomplished the project, exceeding Redtape Ltd. expectations in achieving the stringent FM2 standards for flatness and levelness, as per global standards. The 5-step concrete polishing process enhanced the flooring appearance while maintaining durability, making a lasting impression. And, the use

of advanced equipment like the Somero S-158 C Laser Screed Machine improved efficiency, reduced labour requirements, and enhanced precision.

The collaboration between us, Zenith Flooring Services, and Redtape Ltd. resulted in a remarkable floor. By adhering to global standards, utilizing cutting-edge technology, and executing meticulous processes, we ensured that Redtape Ltd. Unnao facility stands as a testament to quality and innovation in the industry.

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