

Case Study: Ensuring Proper Bonding with Pressure-Sensitive Adhesives



Introduction

Achieving a strong and reliable bond between flooring and the substrate is critical to a successful installation. However, contaminants such as sealers, finishes, waxes, or curing compounds can compromise adhesion, leading to costly failures. This case study examines the importance of bond testing with pressure-sensitive adhesives and how Taylor provides solutions to ensure optimal performance.



Customer's pain points

- Inconsistent Adhesive bonding due to surface contaminants.
- Adhesive failure leading to installation issues and warranty concerns
- Lack of standardized testing before flooring installation
- Misconceptions about high moisture-tolerant adhesives providing moisture protection for flooring
- Failure to conduct bond tests, meaning potential issues with substrate adhesion go unnoticed until after installation



Taylor's solution

1. Establishing a Reliable Bond Testing Protocol
 - Ensuring the environment is under HVAC control at service temperature and humidity for a minimum of 72 hours before testing.
 - Cleaning the test area by scraping, sweeping, and vacuuming to remove debris.
 - Applying the specified Taylor Adhesives pressure-sensitive adhesive using the correct trowel and allowing it to dry to a tacky state.
 - Installing flooring and rolling it with a 75-100 lb. roller for proper adhesion.
 - Conducting destructive testing after 24 to 48 hours to assess bond strength.
2. Adhesive Solutions for Enhanced Performance
 - Taylor Pinnacle® – A high-performance adhesive that provides strong, pressure-sensitive bonding and high moisture tolerance.
 - Taylor Dynamic® – Designed for resilient flooring installations, offering excellent adhesion under demanding conditions.
3. Substrate Preparation and Remediation
 - If the adhesive fails to bond properly, Taylor recommends mechanical surface preparation using a 100-grit diamond brush on a low-speed floor sander to remove contaminants.
 - Retesting the area post-cleaning to confirm adequate adhesion before full installation.



Conclusion

Proper bond testing is essential to prevent flooring failures and ensure long-term durability. By following standardized testing procedures and utilizing high-performance adhesives such as Taylor Pinnacle® and Taylor Dynamic®, flooring professionals can mitigate risks associated with substrate contamination. Taylor provides the tools and expertise necessary to achieve reliable flooring installations with confidence.