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Corinthian Cast Stone Inc. Technical Bulletin
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UNDERSTANDING WATER-REPELLENT COATINGS FOR INDIANA LIMESTONE

As a trusted provider of Indiana Limestone, **Corinthian Natural Stone** is committed to equipping design professionals, contractors, and building owners with essential information to preserve the aesthetic and structural integrity of natural stone installations. One effective strategy for long-term durability is the application of water-repellent coatings. These products are engineered to minimize water penetration while allowing the stone to breathe, preserving its natural characteristics and ensuring long-term performance.

This bulletin explores the characteristics, benefits, and application guidelines for water-repellent coatings, drawing on industry standards such as those outlined by ASTM and the Indiana Limestone Institute (ILI).

CHARACTERISTICS OF WATER-REPELLENT COATINGS

Water-repellent coatings for Indiana Limestone are designed to limit water intrusion while maintaining vapor permeability. This feature prevents trapped moisture, reducing risks of internal condensation, efflorescence, mildew, and surface staining. Properly applied coatings also enhance weather resistance, prolong the life of the stone, and simplify cleaning.

The most suitable coatings are silane- and siloxane-based products, which chemically bond within the porous structure of the limestone. These coatings outperform alternatives like acrylic and silicone, offering superior UV resistance, long-term performance, and deep penetration. This aligns with ASTM C568 and Indiana Limestone Institute guidelines.

APPLICATION GUIDELINES

Surface Preparation

- Perform all cleaning, joint pointing, and stone inspections before application.
- Ensure surfaces are free of contaminants and adequately dry unless specified otherwise by the coating manufacturer.

Product Selection

- Use silane or siloxane formulations specifically recommended for Indiana Limestone above-grade applications.
- For subgrade limestone, consider additional damp-proofing measures, such as cementitious backings or bituminous coatings, to counter groundwater staining. Refer to ASTM C1601 and ILI Technotes for guidance.

Testing

- Apply a small test area to confirm compatibility, ensuring the coating does not alter the natural color or texture of the stone.

Timing and Sequence

- Apply coatings after installing all structural components, such as flashing, weep holes, and sealants, per TMS 402/602 masonry standards and ILI recommendations.

Environmental Conditions

- Follow the manufacturer's specifications for temperature, humidity, and curing times to achieve optimal results during application.

MAINTENANCE AND LIMITATIONS

Water-repellent coatings act as a preventative measure and cannot address pre-existing moisture issues caused by inadequate flashing, improper joint materials, or poor drainage. Long-term success depends on a well-ventilated wall assembly with proper moisture barriers and drainage systems. Regular inspections and reapplications are recommended to maintain effectiveness.

CORINTHIAN NATURAL STONE SUPPORT

Corinthian Natural Stone adheres to the highest industry standards, including ASTM C568 for dimension limestone and ILI technical guidelines. Our team provides technical support tailored to meet project-specific requirements, including compliance with ACI 530.1 masonry standards and TMS 402/602 specifications.

For additional assistance with product specification, installation practices, or maintenance strategies, contact our technical services department at **631-920-2340 or info@corinthian-usa.com.**

REFERENCES

- ASTM C568, ASTM C1601
- Indiana Limestone Handbook
- Indiana Limestone Institute Technotes
- TMS 402/602 Masonry Standards
- ACI 530.1

This Technical Bulletin addresses generally accepted practices for Indiana Limestone and is intended as a guide only. Specific project requirements should be determined by design professionals based on actual conditions and intended use.
For further information, visit www.corinthian-usa.com.

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