CORINTHIAN
CAST STONE, INC

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Corinthian Cast Stone Inc. Technical Bulletin
Updated November 2024

INSPECTION AND ACCEPTANCE OF ARCHITECTURAL PRECAST CONCRETE (APC)

At **Corinthian Cast Stone Inc.**, we are committed to delivering premium architectural precast concrete (APC) for projects of all scales. Effective inspection and acceptance processes are vital to ensuring APC products meet aesthetic and structural expectations. This technical bulletin outlines industry-recommended practices for inspecting APC, adhering to ASTM C1364, TMS 404-504-604 Standards, and PCI (Precast Concrete Institute) guidelines, providing contractors, architects, and engineers the tools for successful evaluation.

INSPECTION CRITERIA

Aesthetic Properties

- **Consistency:** Inspect APC materials upon delivery, comparing against approved samples under natural or typical site lighting. Avoid direct sunlight, which can exaggerate minor imperfections.
- **Acceptable Variations:** Minor color and texture variations are natural due to raw material composition. ASTM C1364 and ASTM D2244 permit color differences within 6 units and hue variations up to 2 units.
- **Common Issues and Remediation:**
  - **Efflorescence:** Address using manufacturer-approved cleaning methods.
  - **Mortar Smears or Stains:** Remove carefully following maintenance guidelines.
- **Touch-Up:** Allow repaired areas to weather naturally before assessing color integration.

Dimensional and Structural Properties

- Confirm APC units align with project specifications for shape, size, and tolerance.
- **Deficiencies to Note:**
  - Cracks >0.007 inches.
  - Surface voids or bug holes on finished areas.
  - Warping, twisting, or other dimensional inaccuracies beyond TMS standards.
- Inspect for proper joint alignment and spacing to ensure structural integrity and stress distribution.

MOCKUPS AND SAMPLE PANELS

Mockups and sample panels are essential for complex or large-scale projects. These provide a preview of the final appearance and resolve potential issues before installation.

- Mockups should represent the variety of APC configurations, including vertically cast units.
- Use TMS 602-16 guidelines for ensuring compliance with visual and dimensional tolerances during mockup reviews.

QUALITY ASSURANCE

Corinthian Cast Stone Inc. follows strict quality assurance protocols:

- Testing for compressive strength (ASTM C1194) and absorption (ASTM C1195).
- Verifying color consistency using ASTM D2244 standards.
- Ensuring dimensional accuracy per TMS 404-504-604 tolerances.
- Our plant certifications reflect our adherence to rigorous industry standards, ensuring reliable APC performance for decades.

CORINTHIAN ARCHITECTURAL PRECAST SUPPORT

Corinthian Cast Stone Inc. adheres to rigorous quality standards, including ASTM C1364 for APC manufacturing and ASTM C1194 and C1195 for strength and absorption testing. We offer tailored technical support to meet IBC Chapter 21 Masonry requirements and ACI 530.1 guidelines.

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 Standards: ASTM C1364, C1194, C1195, C1384, C1601
- Industry Guidelines: PCI (Precast Concrete Institute) Technical Manuals, TMS 404-504-604 Standards
- Additional Resources: Corinthian APC product specifications and repair guides

This Technical Bulletin reflects industry-accepted best practices 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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