PERSONNEL QUALIFICATIONS

Mateusz Starczewski | Associate III

EDUCATION

- University of Illinois Chicago
  - Bachelor of Science, Chemistry, 2018

PRACTICE AREAS

- Coatings and Corrosion
- Construction Materials
- Laboratory Evaluations
- Chemical Analysis
- Microscopy
- Product Evaluation

REGISTRATIONS

- AMPP Certified Coatings Inspector - Level 2
- ICRI Certified Concrete Moisture Slab Technician

PROFESSIONAL AFFILIATIONS

- Association for Materials Protection and Performance (AMPP)
- Concrete Reinforcing Steel Institute (CRSI)

CONTACT

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EXPERIENCE

Mateusz Starczewski joined WJE in 2019, and as a chemist, performs various material evaluations. His experience includes standardized and specialized analytical testing on a diverse array of materials, including coatings, sealants, waterproofing membranes, plastics, wood, corrosion, glass, and cementitious materials. Mr. Starczewski also has experience with field examinations and quality assurance inspection of coatings and is a certified coatings inspector.

Mr. Starczewski uses various analytical techniques to solve construction materials problems, including chemical analysis, microscopy, physical, and accelerated weathering testing. He has expertise in Fourier transform infrared spectroscopy, gas chromatography with mass spectrometry, UV/visible spectroscopy, numerous wet chemical techniques, and light microscopy.

REPRESENTATIVE PROJECTS

Coatings and Corrosion

- Various Infrastructure - U.S. Nationwide: Salt spray resistance studies of various materials, including coatings
- Manufacturing Plants - U.S. Nationwide: Rebar coating plants quality control system audits
- Manufacturing Plant - East TX: Protective coating application quality assurance
- Various Buildings - U.S. Nationwide: Complete characterizations of unknown coatings
- Various Buildings - U.S. Nationwide: Protective and decorative coatings failure investigations and laboratory testing
- Commercial Building - U.S. Nationwide: Investigation of floor coating failures

Construction Materials

- Various Buildings - U.S. Nationwide: Evaluations of discoloration of wood laminate panels
- Various Buildings - U.S. Nationwide: Evaluations of sealants and adhesives
- Hotels - U.S. Nationwide: Composition identification of facade components for worldwide fire life safety audits
- Various Locations - U.S. Nationwide: Evaluation of causes of fracture of high-density polyethylene and PVC pipes
- Various Buildings - U.S. Nationwide: Evaluation of causes of tempered glass fractures
- Various Buildings - U.S. Nationwide: Analysis for bond breakers in precast and tilt-up concrete structures
- Commercial Buildings - U.S. Nationwide: Evaluation of rundown of polyisobutylene sealant in insulated glass units
- Commercial Buildings - U.S. Nationwide: Staining of glass windows related to exposure to construction materials

Laboratory Evaluations

- Testing methods for characterization of flame retardants in facade elements
- Testing methods for material compatibility
- Testing methods for installation-related performance evaluation of plural component materials
- Materials failure investigations
- Corrosion resistance testing

Chemical Analysis

- Materials analyses for identification of components
- Qualitative and quantitative analyses of various materials
- Chemical analyses of paints, coatings, membranes, and sealants
- Admixture for concrete and mortars analyses

Microscopy

- Evaluations of coatings and coating substrates
- Evaluations of polymeric material fractures
- Evaluations of environmental exposure degradation of various materials