**Summary**

 **Tile Technology – Adhesives**

This free to attend workshop is a professional development training opportunity open to all tile industry professionals. Attendees will be exposed to basic, intermediate, and advanced skills and information provided by knowledgeable, experienced NTCA staff trainers. All content is based on recognized tile industry standards, methods, best practices, and manufacturer instructions designed to achieve beautiful tile installations that will stand the test of time and intended use.

**Adhesives** for tile are complex with many types available. It can be complicated for a tile industry professional to identify which adhesive to select for a given application and why. Attendees will learn about the many different types of adhesives for tile, how they work, what their properties are, how to identify and select the right one for an installation and how to add the final processes to mix and apply it as the bond coat supporting their tile installation.

Trowels are gauges used to apply tile adhesives. Attendees will learn to properly use and pair a wide array of trowels with a variety of adhesive and tile selections to achieve efficiency and success.

Lippage can result when adhesives and trowels are not used correctly. Workshop attendees will leave with the knowledge to correctly bond a tile installation with lippage less than or meeting recognized allowable tile industry standards.

**Timeframe:**

This workshop is approximately ½ day (4 hours) in duration. With advance scheduling the time of day and day of week may vary from morning to afternoon to evening, Monday – Saturday.

This professional develop workshop program will stress:

* Industry standards, methods and best practices for efficiency and success
* Adherence to manufacturer instructions
* Understanding adhesive technology as described in industry standards
* Identification of adhesive types for their intended uses
* Selection and proper use of tools to mix and apply adhesives
* Understanding and identifying the components of an acceptable tile installation as described by tile industry standards from the perspective of acceptable allowances for lippage

**Tile Technology – Adhesives**

**Agenda**

**Welcome and Introductions**

* + - Meet the host staff and NTCA staff
		- Overview of workshop and agenda

**Classroom - Professional Development**

* Brief Overview of Tile Industry Standards for Adhesives and Lippage
* ANSI A137.1 / A137.2 / A137.3
* ANSI A108 / A118 / ANSI A136.1
* TCNA *Handbook*
* NTCA *Reference Manual*

**Hands On Instruction – Adhesive selection, mixing and usage for tile type and size**

* Adhesives for wall installations
* Dry-set, Thin-set mortars
	+ ANSI A118.4
	+ ASI A118.15 LHT
* Organic adhesive
	+ ANSI A136.1 Type I / Type II
	+ Adhesives for floor installations
* Dry-set, Thin-set mortars
	+ ANSI A118.1
	+ ANSI A118.4 F
	+ ASI A118.15 LHT
* Epoxy adhesive
	+ ANSI A118.3 / A118.8

**Hands On Instruction – Trowel selection and usage for tile type, size and adhesive**

* Identification, selection, purpose, proper usage

**Hands On Instruction – Lippage**

* Industry standard allowances
	+ - * Tile attributes
			* Substrate flatness tolerances
			* Patterns and joint width
* Installing tile within industry standard allowance for lippage
* Lippage assist devices - purpose and proper use
* Finished installations - recognized inspection methods

**Review / Q&A**

* Industry Standards
* Adhesives
* Trowels
* Lippage