

## MTI ACADEMY INDEX

(Includes but is not limited to)

**Metalcasting Training Modules – Instructor led training for various metalcasting topics and includes built in quizzes.**

1. Sand Casting History & Casting Process Basics – provides a baseline understanding of the greensand casting process.
2. Greensand Materials - learn the roles that each raw material plays in the green sand molding process.
3. Greensand Controls & Molding Methods – A sand casters guide to greensand control and optimization
4. Casting Quality & Defect Analysis – covers what contributes to overall casting quality and give our users an understanding of the most typical casting defects.

**TECHToolbox – Contains individual educational pieces such as video tutorials and academia findings.**

1. Legacy Technical Publications – ACC flyers, papers, and other publications from historical figures within ACC such as Clyde Sanders, Mike Van Leirsburg, and others.
2. Technical Data Sheets – TDSs for materials such as but not limited to Additrol®, Volclay DC-2®, Panther Creek DC-6®, and FloCarb®
3. TECH Papers & PowerPoints - ACC technical papers and/or presentations that have been presented in the last decade across various public forums.
4. Greensand Testing Video Tutorials - Videos showing ACC lab technicians demonstrate all the common greensand lab tests.

**TECHTalks – Supplemental training across various topics provided by ACC and its team of industry experts.**

1. Improved Greensand Control Using Mass Balance Techniques – In this TECHTalk ACC discusses methods to use mass balance to reduce active clay variation.
2. Average Additrol Formulations & Associated Properties – In this TECHTalk ACC will use the power of data to shed light on what iron foundries across the US are using and the properties being obtained.
3. Greensand Additives: Which & Why – In this TECHTalk we will review all the available additives that ACC currently supplies, their use, and impacts to a greensand system.
4. Sodium vs. Calcium Bentonite: Which & Why – In this TECHTalk ACC will dive deep into the two predominant materials available to metalcasters in the United States, Sodium & Calcium bentonite. What is the difference between these two materials? What happens if they are blended? All of this and more, will be answered.
5. Clay Geology & Exploration – In this TECHTalk ACC with the help of its Mining/Exploration team expand on ACC's clays and what makes them so valuable to the metalcasting industry.
6. Welcome to MTI Academy – American Colloid has maintained a focus on education and technical assistance for our customers since the beginning. In this TECHTalk you will be introduced to our learning management system, its structure / content, and how we intend to innovate in this space going forward.
7. Understanding Bond Consumption – In this TECHTalk we learn to understand bond consumption, its drivers, and how best to monitor it.
8. Questions and Answers Live – In this TECHTalk the ACC team gathers questions from past talks and present-day entries to answer live. Subjects varied from pH, wet tensile, sand management, and supply chain questions.
9. New and Core Sand Dilution – In this TECHTalk hosted by ACC Europe, a greensand foundries new/core sand input and dilution are discussed.
10. Greensand Reports Part 3: Ratios – In this TECHTalk ACC will break down each of the ratios found on your ACC sand reports.
11. Greensand Report Part 2: Advanced Tests – In this TECHTalk ACC breaks down each of the advanced tests found on your ACC sand reports.

12. [Greensand Reports Part 1: The Basics](#) – In this TECHTalk ACC breaks down each of the green properties as found on the ACC sand reports.
13. [ACC Testing Capabilities & Services](#) – In this TECHTalk ACC gives you a virtual tour of our Hoffman Estate's lab and everything it has to offer our customers.
14. [Dust Collection & Its Impacts](#) – In this TECHTalk ACC discusses dust collection and its impacts to a greensand foundries quality.
15. [Understanding Wet Tensile Test](#) – In this TECHTalk ACC discusses the Wet Tensile test and its impact to greensand quality.
16. [Predicting Greensand Emissions](#) – In this TECHTalk ACC discusses its proprietary research into predicting a foundries greensand emission.
17. [Chemistry of Clay Activation](#) - In this TECHTalk ACC discusses the chemistry of clay activation and its importance to the greensand foundry.
18. [Active Clay, Total Clay & Moisture](#) – In this TECHTalk ACC discusses active clay, total clay, & moisture along with their impacts to your greensand quality.
19. [FloCarb & Its Observed Benefits](#) – In this TECHTalk ACC discusses this proprietary greensand additive and its many benefits to greensand foundries.
20. [Understanding Methylene Blue](#) – In this TECHTalk ACC discusses the Methylene Blue test, procedure, and sensitivities.