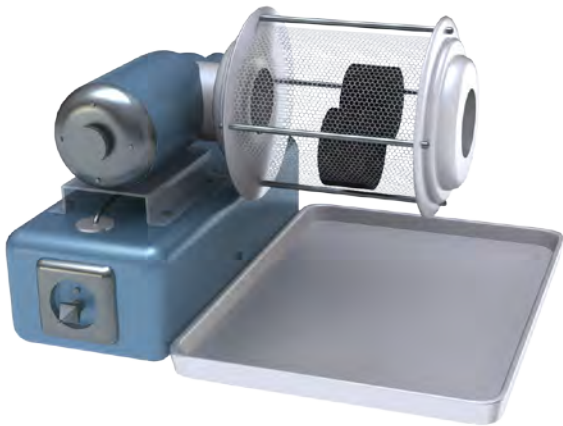


GREEN SAND PROPERTIES

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

Green Sand Properties is an introduction to the basic terminology and methodology applied to green sand systems. Presented in THORS' highly visual and interactive learning format, this course equips foundry employees with a more robust and comprehensive understanding the physical, chemical, and mechanical properties of foundry grade green sand.

Credit Hours **1.5**

Learning Objectives

- Understand some of the basic characteristics of green sand.
- Differentiate between the various green sand ingredients.
- Recall the system used to classify sand distribution.
- Identify the common properties associated with green sand systems.

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I. Green Sand Characteristics

- Sand Mining
- Green Sand Ingredients
- Sand Types
 - o Silica Sands
 - o Specialty Sands
- Sand Size
- Sand Size Distribution
- Sand Shapes
 - o Angular Sand
 - o Sub-Angular Sand
 - o Round (Spherical) Sand
 - o Compound Sand
- Types of Additives

- o Carbons
- o Cellulose
- o Cereals

- Types of Bentonite
- Effects of Moisture

II. Measured and Derived Properties

- Measured Properties
 - o AFS Clay
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 - o Dry Compression Strength
 - o Friability
 - o Green Compression Strength
 - o Green Tensile Strength
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- o Loss on Ignition (LOI)
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- o Permeability
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- o Thermal Expansion
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- o Specimen Weight
- o Wet Tensile Strength
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 - o Available Bond
 - o Working Bond
 - o Mulling Efficiency

