

IMQUICK™ is the innovative PREMIX in the world of molding sand binders (patent pending) and the subject of continuous research and development efforts.

**Benefits to IMQUICK™**

**Molding Sand Properties:**

- Reduced moisture requirements for the desired compactability
- Improved mold density with uniform compaction
- Better green sand properties
- Higher dimensional accuracy
- Improved bentonite dispersion
- Increased abrasion resistance (erosion resistance)

**Benefits to IMQUICK™ Molding Sand Properties**

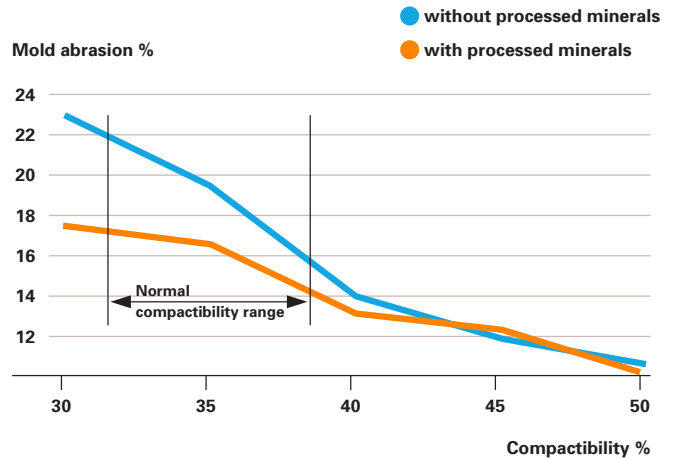
Significantly improved molding sand characteristics compared to traditional blends IMQUICK™ and the corresponding blends are conditioned with process minerals in accordance with the patented process. IMQUICK™ blends are manufactured with the world’s best bentonites. When using IMQUICK™ the sand grains are provided with a uniform binder coating which allows a prepared molding sand to perform in optimal performance capabilities. These benefits include:

- The mold integrity improves which results in optimum molding capabilities.
- The prepared molding sand requires less water for the targeted compactability which results in improved moisture retention.
- The reduction in water required results in the tendency to have fewer explosion penetration defects.
- Less water translates into quicker clay activation in the muller

**Optimum flow properties**

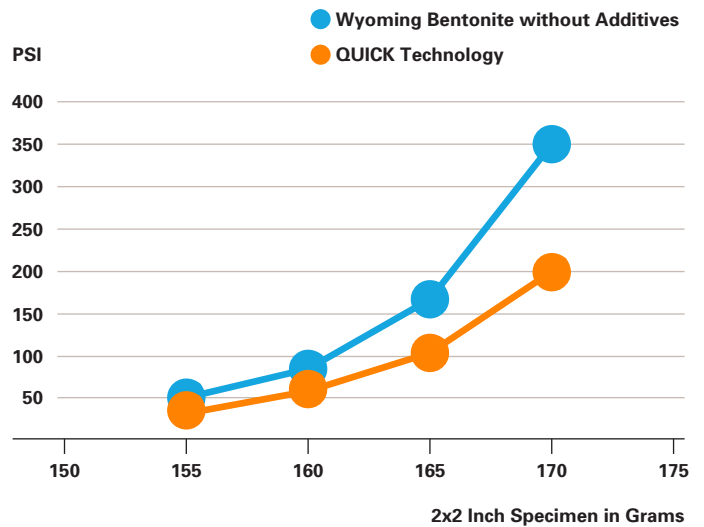
With the application of the “Quick” Technology the prepared molding sand will have a resistance to erosion.

**Resistance to erosion as a function of compactability**

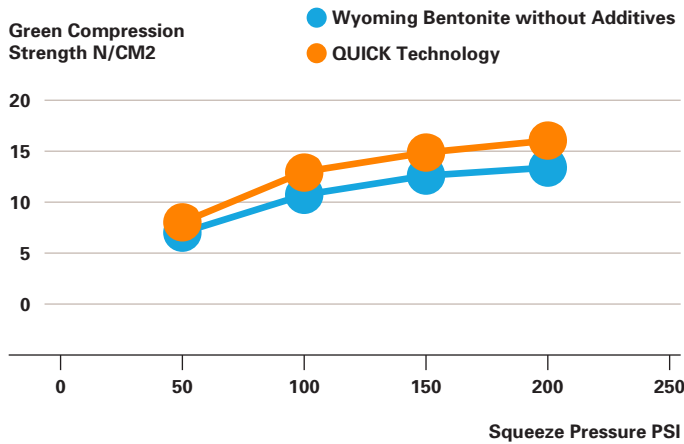


With modern molding equipment, it is critical that prepared molding sand has a high flowability. When using IMQUICK™, the flowability of the prepared molding sand is significantly improved and resulting in increased green compression strength and higher density.

**Squeeze Pressure**



## Development of Green Compression Strength

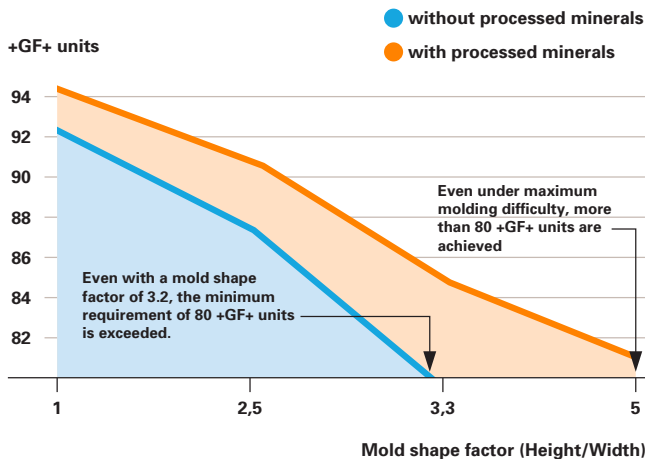


### Improved mold compaction and shape stability

IMQUICK™ increases and homogenizes prepared molding sand density, leading to higher green compression strengths. Complex pattern shapes with high mold shape considerations are formed without difficulty. There is a minimized risk of casting defects because of the improved quality of the prepared mold with IMQUICK™.

For further assistance the specialists at IMERYS will be glad to provide your foundry with information and advice.

## Mold hardness for different mold shape factors



## Avoidance of spring-back effects

When using IMQUICK™ the spring-back of the mold after compaction is reduced. Prepared molding sand defects that are the result of spring-back effects are reduced

## Spring-back of bentonite-bonded sand mold

