

# ECOCURE™ BLUE PRO



## NEW COLD BOX BINDER SYSTEM FOR HIGHER PERFORMANCE, GREATER EFFICIENCY, AND IMPROVED ENVIRONMENTAL FOOTPRINT

Increasing competitive pressure and stricter emission requirements, especially with regard to VOC and BTX emissions, are challenges that foundries have to face. Changing the cold box binder system is an option to reduce emissions. It is crucial to have a particularly high reactivity of the cold box system in order to reduce the amount of binder used and consequently emit fewer emissions.

The newly developed PUR cold box system ECOCURE™ BLUE PRO optimizes the casting properties and at the same time reduces binder and amine quantity. By increasing efficiency, the newly developed technology enables foundries to further reduce emissions and improve the environmental performance of their processes.

### TECHNOLOGICAL ADVANTAGES

- Binder reduction possible
  - Consistent strength
  - Reduction of binder emission by up to 78%
- No occupational exposure limits (OELs) value
- Very low amine consumption
- Almost no odor during core production and storage



ECOCURE™  
**BLUE**  
PRO

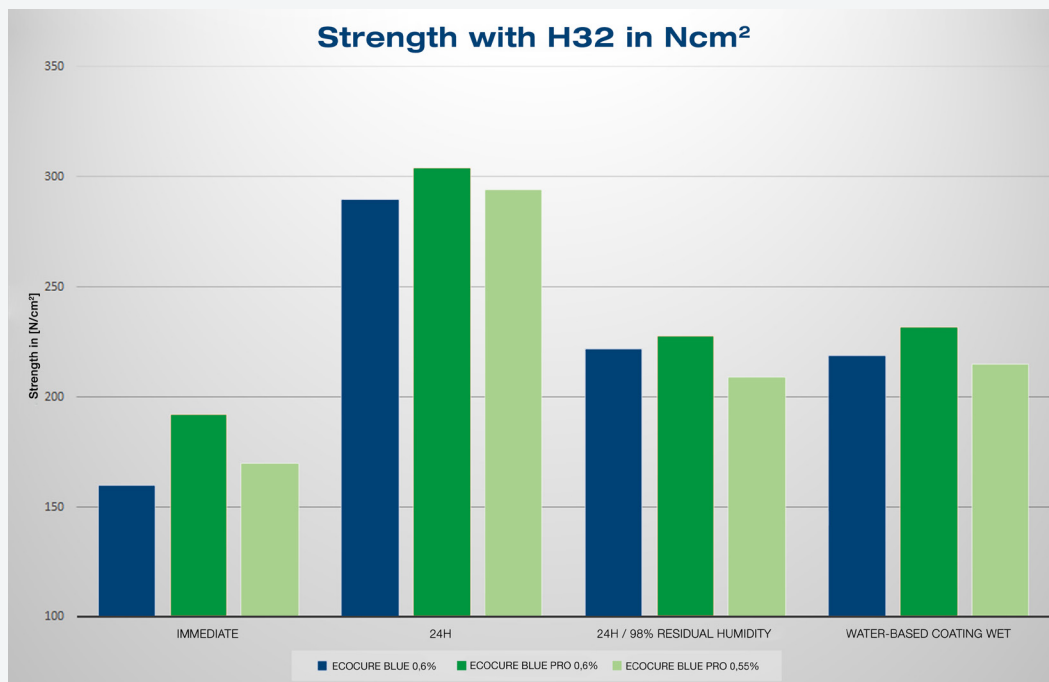


Figure 1: Comparison of strength with sand H32 for different cold box systems

**ECOCURE™ BLUE PRO for higher performance, greater efficiency, and improved environmental footprint**

Since 2015, ASK Chemicals has further developed the high-performance ECOCURE™ BLUE technology and increased the efficiency of the system. The new ECOCURE™ BLUE PRO now enables an additional reduction of binder and amine by up to 10% while at the same time optimizing casting properties.

In tests, ECOCURE™ BLUE PRO shows increased reactivity with improved immediate strength (Figure 1). The strengths of sand cores with standard H32 sand and different binder generations and quantities at different times are compared. The binders ECOCURE™ BLUE with 0.6%, ECOCURE™ BLUE PRO with 0.6% and ECOCURE™ BLUE PRO with 0.55% are shown in the figure above. Here you can see that the cores shot with 0.6% ECOCURE™ BLUE PRO always have the highest strength compared to the other sand cores, both immediately after shooting, 24 hours later, with a residual strength of 98%, and also after coating with a water-based coating. For the user this means that the ECOCURE™ BLUE PRO system offers to improve the strength of cores, which leads to higher performance and reliability in production.

The new ECOCURE™ BLUE PRO technology offers foundries the opportunity to significantly improve the emissions and environmental performance of their processes. Thanks to its high efficiency, the binder content can be reduced by 0.05% for the same strength as ECOCURE™ BLUE (Figure 1).



Figure 2: Comparison of binder systems in regards to performance and EHS/Environment.

**YOUR SUSTAINABILITY PLUS**

**Profitability**

- Improved cost efficiency
- Significantly higher reactivity of the binder

**Environment & Social**

- Label-free
  - Free phenol <1,0%
  - Free formaldehyde <0,1%
- Binder reduction possible
  - Less VOC and BTX emissions
  - Less amine requirement