

How SEMCO CC coatings with colour change visualisation reduce energy costs and optimise the drying process



INNOVATION & TECHNOLOGY

THE CHALLENGE

The customer wanted to reduce moisture-related defects and visualise sufficient drying times by using different colours of the applied coating. The aim was to prevent the use of insufficiently dried cores in production and to avoid rework or scrap. They also wanted to optimise the drying time and temperature.

FOUNDRY:

Eisengiesserei Baumgarte GmbH, Germany - With a wide range of references in a variety of industries, from general mechanical engineering, plant engineering and railway engineering to vehicle construction, pump technology and special drive technology.

PARAMETER

Alloy: EN-GJL-HB 215
Coremaking: Cold box
Casting weight: 31 kg
Core package weight: 21 kg
Casting temp.: 1,400-1,420°C

FOSECO PRODUCTS

SEMCO* CC coatings

A colour change indicator can be integrated in almost every Foseco water coating. Excluded are pure graphite or coke dust coatings. The colour change works on the following systems:

- Furane resin
- Phenolic resin
- Coldbox
- Shell process
- Lost Foam

OUR SOLUTION

Selection of the most suitable coating family for the application. This coating is supplemented with a suitable colour indicator, which can also be removed again if required. A colour indicator can also be added to Foseco water-based coatings already in use in order to visualise and thus optimise drying processes.

KEY BENEFITS

- Visualisation of the drying time by a different colour
- for oven drying, determination of the optimal drying time and temperature
- thereby optimising/minimising energy costs and environmental impact
- Reversible colour change at high humidities
- Savings of 20% energy costs per year

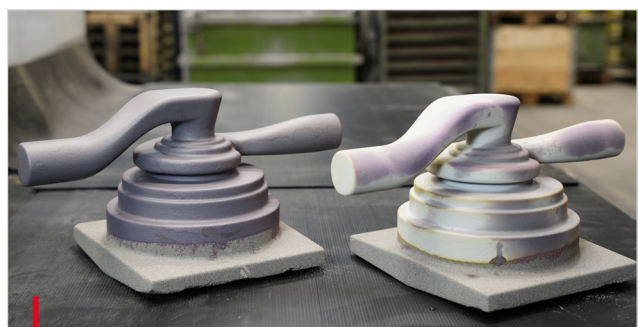
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THE OUTCOME

By using the SEMCO* CC with colour indicator, the customer achieved an optimisation of the drying process. The result: Reduction of energy costs & drying times and increase of productivity. Visualisation prevents insufficiently dried cores from being used. These improvements resulted in savings of **20% energy costs per year**.

PU-ColdBox core coated – excellent flow properties



Clearly Visual – Wet vs dry coating layer – the colour change is REVERSIBLE, ie can show moisture pick up

THINK BEYOND. SHAPE THE FUTURE.



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