

SUSTAINABILITY

THE CHALLENGE

The challenge in manufacturing CuZn34Al alloy castings from the is their high feed requirement to avoid the risk of shrinkage defects. This application required a significant number of feeders, specifically 8 AA3/150 sleeves, which can increase material and fettling costs, as well as reducing productivity.

FOUNDRY:

Pleiger in Witten manufactures high-quality aluminium and copper castings for almost all applications via the sand casting process. With optimised processes and in-house pattern making and machining, small and medium-sized series in particular can be realised economically.



PARAMETERS

Alloy: CuZn34Al Casting weight: 131 kg Pouring temp.: 1,000°C

Poured weight: 153 kg

Cycle time: 30 s

FOSECO PRODUCTS

4x FEEDEX* NF1 feeder sleeves V 339 4x SEDEX* 50x50x22, 10ppi filters





OUR SOLUTION

To address this challenge, Foseco's highly exothermic FEEDEX NF1 sleeves were applied to provide better feeding performance. As a result, the volume of the feeders could be significantly reduced, leading to a reduction in the number of sleeves required. In fact, only 4 FEEDEX NF1 sleeves and 4 SEDEX filters were needed to achieve the desired feeding performance. This solution not only improved the casting process but also helped to reduce material and fettling costs, as well as improved productivity.

KEY BENEFITS

- Less circulating material
- Reduced fettling costs
- Improved productivity
- Lower CO₂ footprint

> LET'S LEARN MORE



THINK BEYOND. SHAPE THE FUTURE.

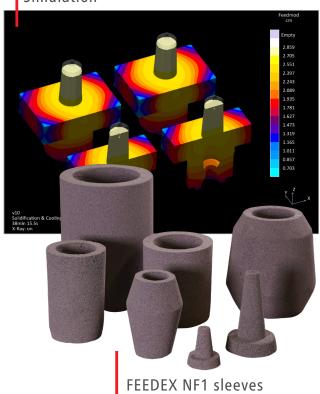




THE OUTCOME

The finished casting met all quality requirements, while using only 4 FEEDEX NF1 sleeves instead of 8 AA3/150 sleeves, resulting in a savings of 35 kg of melt. This reduction in the number of sleeves and associated materials not only reduced costs but also led to a lower CO₂ footprint. Furthermore, the improved feeding performance of FEEDEX NF1 sleeves also resulted in less circulating material, further reducing fettling costs and improving productivity. Overall, this solution provided a more sustainable and cost-effective option for the foundry industry.

Simulation



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