

How Foseco's granulate and rotor system can boost your aluminium HPDC foundry



KNOWLEDGE & PARTNERSHIP

THE CHALLENGE

The HPDC foundry industry is facing increasing pressure to reduce production costs and improve quality. At the same time they are challenged to improve sustainability and respect the environment.

HPDC foundries need to reduce metal losses, avoid oxide formation and optimise treatment time while ensuring dry and clean dross. A leading HPDC foundry in Europe, producing automotive parts for a wide range of customers and applications was looking for a solution to meet these challenges.

FOUNDRY:

Tugçelik Alüminyum & Metal Mamülleri San. ve Tic. A.S. is a leading high pressure die casting parts manufacturer in Turkey, specialising in the automotive, home appliances/white goods, and electrical and mechanical industries. Their plant is equipped with a range of high pressure die casting machines, making them a competent partner for die cast aluminum components.

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PARAMETERS

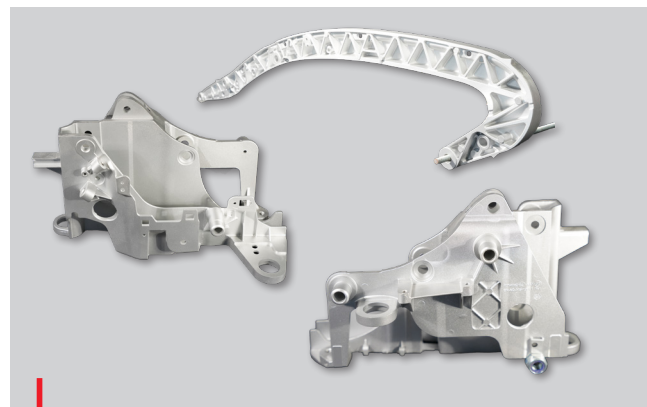
Alloy: AlSi12Cu1

Alloy weight: 350 kg

Alloy temperature: 750°C

Degassing time: 210 s

Flux amount: 240 g



Sun roof components

FOSECO PRODUCTS

COVERAL* 2510 granular fluxes

DIAMANT* FDR rotor system

OUR SOLUTION

The foundry adopted COVERAL 2510 granular fluxes and DIAMANT FDR rotor system which gave superior results to the alternative highly exothermic fluxes that they were using. COVERAL 2510 fluxes and DIAMANT FDR rotor system delivered a dry dross without the need for an exothermic reaction, better oxide removal and longer lifetime. They also produce less fume and are more environmentally friendly than conventional fluxes.

KEY BENEFITS

- 55% less aluminium in dross
- 28% less oxide content
- Increased casting quality
- Lower metal treatment costs
- Lower fume

> LET'S LEARN MORE



THINK BEYOND. SHAPE THE FUTURE.

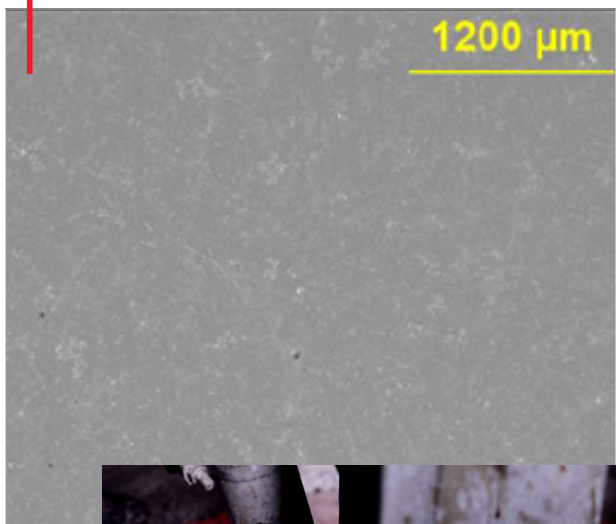


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THE OUTCOME

Vmet and Dross tests were conducted before and after the process change and the samples were sent for analysis. The results clearly showed that the combination of COVERAL 2510 and DIAMANT FDR rotor system significantly reduced the aluminium content in the dross by 65% and the oxide level at VMet analysis by 28%. This led to an improvement in casting quality due to less oxide and lower metal treatment costs for the foundry.

Vmet Results



Degassing process

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