



Photo: First batch of clinker from Zero-Slag raw material (Credit: Magsort)

MAGSORT

Magsort substitutes limestone in the clinker production by using steel slags

At the 18th Global Slag Conference April 14–15 in Istanbul, Finnish Magsort presented their latest results on the substitution of limestone in the clinker production. Although limestone is cheap and abundant, the Magsort ‘Slag-Zero’-Technology saves 60% per unit feed of steel slag such as electric arc-furnace (EAF)-slag and ladle furnace (LF)-slag. In May 2025, Magsort announced the co-operation with Emirates Cement, which is part of EMSTEEL, one of the largest publicly traded steel and building materials manufacturers in the Middle East.

The first pilot tests showed very positive results. About 6–10% of the metals are recovered in the process with a purity >80%. The resulting clinker achieves the same chemistry and strength as conventionally produced clinker, while significant fuel and CO₂ savings can be achieved. After the pilot phase with 2.5% steel slag used in the clinker production, Magsort will process EAF slags on the Al Ain premises of EMSTEEL. The start of production has been slightly delayed due to the war in Iran. Accordingly, the production start has been postponed to summer this year. In the next phase, the slag addition shall be increased from 2.5 to 15%.

Statements on the Strategic Partnership between Magsort and EMSteel in May 2025

Hugo Losada, CEO of Emirates Cement, part of EMSTEEL Group: “This milestone represents an important step in our decarbonization journey. Proving the technical and commercial viability of this decarbonization effort is a promising sign that we will be able to achieve our objective of hitting the 2030 decarbonization targets by 2026. We look forward to continuing this very fruitful co-operation with Magsort over the years to come.”

Kalevi Kostianen, CEO of Magsort: “We are extremely happy in achieving this key milestone in Abu Dhabi. The co-operation with Emirates Cement has been incredibly productive and this facility serves as a large-scale example for the industry on how to achieve significant CO₂ reduction with today’s technology and existing materials. It’s a clear win-win for the cement and steel industries. We would like to thank Emirates Cement for leading the way and taking action.”

<https://www.magsort.com/news/emsteel-leads-first-industrial-scale-use-of-cement-decarbonizer-by-magsort>