



binder

Cement manufacturing has an environmental impact at all stages of the process. We focus on creating new binder compositions that help reduce energy consumption and emissions.

Use more clay, less clinker

Reduce the clinker factor down to 50 percent, save money, emit less CO₂.

Tough market conditions are leading more cement producers to reduce the clinker factor and volume of supplementary cementitious materials, such as fly ash, in their product. Calcined clay offers a sustainable and cost-effective alternative. With its innovative polysius® activated clay technology, thyssenkrupp provides a one-stop solution for raw material substitution. This technology supports substitute fuel rates of up to 100% and – if desired, achieves a traditional grey color of calcined clay cement.



Contact

Benefits

- 01 Reduce the clinker factor down to 50%
- 02 Emit 70% less CO₂ per ton with clay (180 kg CO₂ per ton) in comparison to standard cement production with clinker (790 kg CO₂ per ton)
- 03 Improve cement quality and performance with activated clay components
- 04 Production capacity increases at low capex at minimum production interruption
- 05 Reduce energy costs by up to 40% thanks to lower heating temperatures and short retention times
- 06 Substitute increasingly scarce or expensive supplementary cementitious materials
- 07 Become more self-sufficient in terms of raw materials, particularly in regions where clinker limestone and clinker imports are costly
- 08 Continue to enjoy a gray product, if desired
- 09 Benefit from new business opportunities with the refinement of residual materials
- 10 Substitute fuels up to 100% with conventional, coarse and low-quality fuels
- 11 Spend less on CO₂ emission certificates