

# White cement: a

## White cement production demands special knowhow – and that is precisely what Polysius offers...

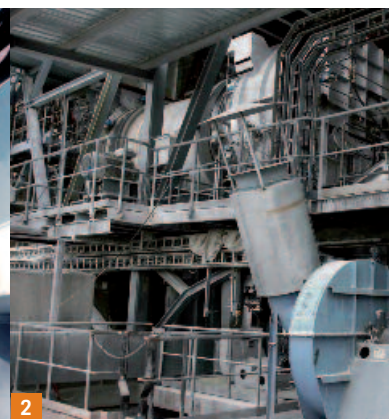
For white cement manufacturing, the raw material, its preparation, the burning process and the clinker cooling are all subject to special requirements. The most demanding step in the production process is the clinker cooling process, because this decisively influences the whiteness of the cement.

### The Polysius Twin Cooler concept

#### The ultimate in whiteness:

The first Polysius Twin Cooler was installed in Spain. This innovative cooler concept has since also been retrofitted at numerous plants all around the world.

The twin cooler consists of the rotary cooler followed by a roll crusher and the POLYTRACK®. In the POLYTRACK® the clinker heat is recuperated for the secondary air, whose temperature is then raised by a hot gas producer before it is supplied to the clinkering zone. The POLFLAME® clinkering zone burner thus receives preheated secondary air, ensuring good burnout of the fuel. The system also ensures that the white cement



**Large photo** Modernised white cement kiln line at the El Alto factory of Cementos Portland Valderrivas in Spain.

**Fig. 1** White cement production line at Tudela Veguín S.A. in Spain.

**Fig. 2** Polysius twin cooler, consisting of rotary cooler, roll crusher and POLYTRACK®.

**Fig. 3** POLFLAME® burner.

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# Polysius speciality

clinker does not cool down in the kiln outlet and thus lose some of its whiteness.

## Turnkey white cement plant

January 2000, Spain

An innovative concept for white cement manufacturing was implemented for the first time in January 2000 at the Tudela Veguín S.A. works in Spain. The turnkey order covered the construction of a complete white cement production line with an extremely low heat requirement. Its capacity had to be adjustable to the needs of a growing market without any major alterations (i.e. the plant produces approx. 400 tpd of white cement clinker but all the machine components are prepared for a maximum production output of 550 tpd). Also, the plant assures a degree of cement whiteness that is second to none.

## White cement kiln line modernised!

January 2007, Spain

The modernised white cement kiln line at the El Alto plant of Cementos Portland Valderrivas was recently put into highly successful operation.

The targets of the modification were not only achieved, but exceeded: ● the specific power requirement was reduced, ● the nitrogen oxide

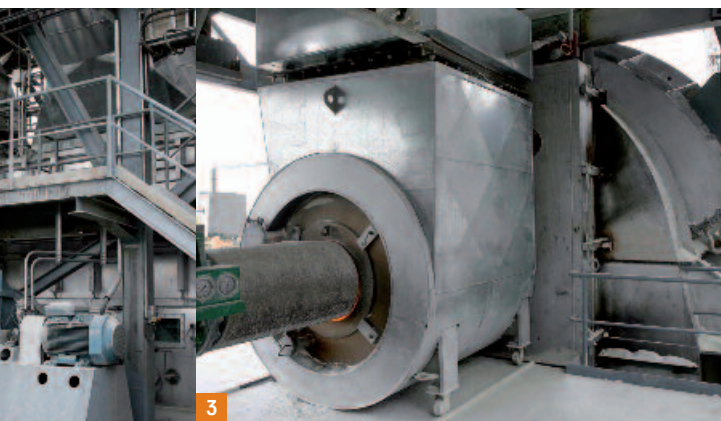
emission was cut by 60 – 70% and the sulphur dioxide emission was slashed by 90% while ● the output of cement clinker was boosted from 700 to 900 tonnes per day. The fuel used at the plant is now 100% petcoke and the achieved cement whiteness of approx. 88% appears as white as snow.

## Turnkey white cement plant

March 2007, Tunisia

SOciété Tuniso-Andalouse de Clment Blanc (SOTACIB) has contracted Polysius to construct a turnkey 1,000 tpd white cement production line. This new line is an extension of the Feriana works in West Tunisia.

The main components are a 12 tph wet process sand grinding plant with ball mill and SEPOL® separator, a raw grinding plant with roller mill for limestone and kaolin with a throughput rate of 83 tph (+ 12 tph pre-ground sand), a blending silo, a kiln line consisting of DOPOL® '90 with PREPOL®-AS precalciner, rotary kiln and twin cooler, a cement grinding plant with ball mill and SEPOL® high-efficiency separator for a white cement output of 55 tph at a fineness of 3,900 cm<sup>2</sup>/g acc. to Blaine. Production startup is planned for the beginning of 2009.



## Polysius news

Polysius now has a group member company in Moscow! The youngest »Polysius daughter« has been active in Moscow/Russia since April 2007. As Russia's great demand for cement can no longer be met by existing capacities, numerous modernisation and new construction projects are in hand. Polysius has established the local presence to ensure direct service for customers in that region.

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## Polysius

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