



## ELSEP® - Elkem Søderberg electrode paste

Elkem Carbon is a world leading supplier of Søderberg electrode paste and operational know-how.

Building on historical traditions of technical development, it is with integrity and professional pride we claim that Elkem has defined the standard for paste performance and for optimal electrode operation.

The Elkem Standard is reflected in our ELSEP® product range, which comprises electrode pastes of high and proven quality, adapted to the various ferroalloys and silicon processes.

Different processes have different operational environments. Successful electrode operations require that the baked electrode has properties that are tailormade to suit the specific conditions. Our product range of electrode paste has been developed based on many years' experience and close cooperation with ferroalloys producers and our own ferrosilicon and silicon plants world-wide.

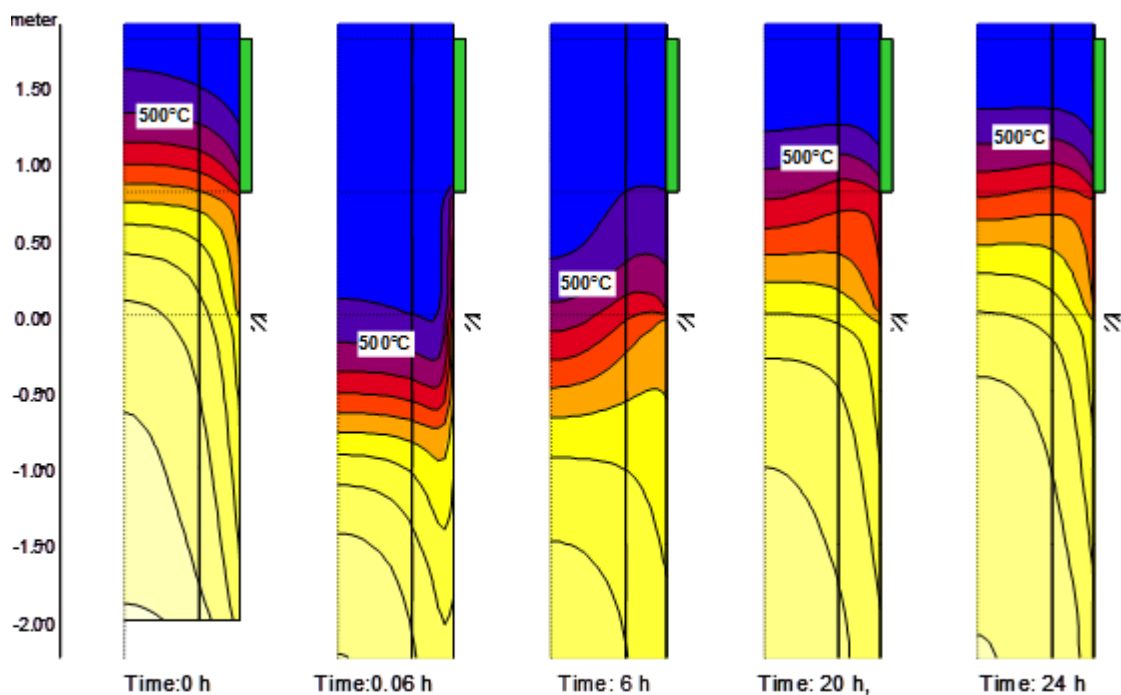
Product quality is one of two key elements in efficient electrode operations. The other key is to manage and operate the electrode column in a safe way, considering the process specific conditions and local equipment.

## Electrode simulations with Elkem Electrode Model

Elkem has developed an useful tool to mathematically simulate the temperatures existing within an electrode in order to address and understand certain dynamic and stationary conditions. An example is to study the position of the baking isotherm during extensive slipping.

The tool can also be used to calculate thermal stresses generated during furnace shut downs. The electrode simulation tool makes it possible to optimize shut down procedures and minimize thermal stresses during the power recovery. Proper procedures reduces the risk of electrode failure.

We offer the data as a service to our customers as a part of improved electrode management. The data is presented in easy understandable graphics.



*Temperatures in an electrode during a long slipping*