

DATA SHEET

Thermalcast

Description: Thermalcast is a refractory castable with a high insulation value yet high strength and resistance to thermal cycling.

Composition: Thermalcast has a very fine microstructure and low permeability, yet the total porosity is 40%. The porosity is largely in the form of minute hollow alumino-silicate spheres of "Hollofill."

Physical properties: Thermalcast mixed with +18 to 21% water gives the following properties after firing to 1300°C.:

C.C.S: 20MPa.

Bulk density: 1,5g/cm³ (S.G. 2,75)

Total porosity: 40%

Permanent linear change: -0,8%

Thermal conductivity:

200°C	0,49W/mK
400°C	0,5 W/mK
600°C	0,52W/mK
800°C	0,55W/mK

Applications: Replaces all traditional "semi-insulation" materials: Hot face linings for ladles to reduce sculling. Soaking pit roofs, especially where Detrick bricks are used as anchors. Any roofs where a weight saving can reduce the structural support system. Brick kiln roofs. Insulation applications which are subjected to mild abrasion. Heat treatment bogeys. Intricate kiln furniture. Places where access is limited or difficult. High thermal shock applications. Aluminium launders, ladles and holding furnaces.

Installation: Mix with about +19% water to +23% water and place by pouring. It is a viscous self-levelling fluid.

DO NOT VIBRATE, it will cause segregation and failure.

Packaging: 20kg plastic bags.

Shelf life: About 18 months.

Pilot plant codes: OTO OZW and PGJ