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PROCESSING BICOMPONENT CHEMICAL BONDED CASTABLES UNIBET

The instructions deal with the bicomponent chemical bonded UNIBET castables that are supplied in a dry powdered form and are mixed with the liquid phosphate REFRAFIX PX binder before processing.

Packing

The dry UNIBET castable mixes are supplied in 25kg paper watertight bags on pallets; the REFRAFIX PX binder in 20kg PE canisters. The mix and binder are to store in dry and frostless storerooms.

Material mixing

Stir the castable mix to optimal application consistency before processing. Dose the dry mix in the forced circulation stirrer, stir for about one minute and then pour $\frac{3}{4}$ of the required quantity of liquid binder carefully. Leave the mix to stir for 3 minutes. You obtain consistency suitable to vibrate by adding the rest of required binder additive. When you apply the castable by ramming, the binder addition is a bit smaller. Select the optimal consistency for ramming according to the shape and volume of the rammed lining, performance and forces of rammers etc. On average, the wetter the mix, the easier the ramming; however the resulting parameters are worse. The mix can be also applied more diluted by pouring and rodding. In this case, the resulting castable parameters are worse significantly.

Installation

To vibrate, use immersion vibrator. Concrete the lining in parts; every part must be compacted before the castable mix is hardened.

The processibility time of the UNIBET castable at the common temperature is about 45 minute from the moment when the liquid binder is added.

Do the ramming very intensively, preferably using pneumatic rammers to obtain a compact and homogenous structure. Ram in the fixed forms and templates so that the walls are not deformed from the pressure caused by the ramming. Ram gradually in 5 cm layers and cast another layer only after perfect compacting. Use a grooved end foot to ram so that the rammed layers can connect perfectly. The smooth foot can be used only for surface finishing of the lining.

Demoulding

Small shapes can be demoulded several hours after installation; large shapes and vertical layers require the moulding to be left to the next day. When working at low temperatures, you have to heat sometimes the castable using a suitable radiator through the moulding or aggregate jacket so that a sufficient demoulding strength is reached.

Drying and the first heating of the rammed linings

The large advantage of the chemical bonded UNIBET castable mixes is elimination of complicated drying and gradual first tempering of the lining.

Immediately after they become hardened, the linings from the UNIBET castables can be put into operation in the temperature mode common for the heat aggregate without any damage of the lining as it is usual for hydraulically bonded castables.

Health and safety protection

Use a respirator when dosing the UNIBET dry mixes in the stirrer. The liquid REFRAFIX PX binder is of acid caustic character. When dosing the binder, protect your eyes always with goggles and use rubber gloves and aprons. When installing the mixed castable mix, work in gloves.