

Installation guidelines Nr.6-QD "QD" DEFLOCCULATED CASTABLES

STORAGE

"QD" dense deflocculated castable, like all hydraulic castable, are sensitive to humidity and thus must be stored in a dry place. In cold weather conditions, the castable should be stored for a minimum of 48 hours before use at above 15°C.

PREPARATION OF ADJACENT SURFACES

Any equipment or tools coming into contact with castable must be clean. Loose material should be removed from adjacent surfaces and existing refractory materials moistened thoroughly.

MIXING WATER

Mixing water must be of drinkable quality as defined by European regulations (Directive 2455/2001/EC). The ideal water temperature is between 15°C and 25°C. The quantity of water used should be within the indicated limits on the bags. Avoid excess water as it reduces strength and increases set times and shrinkage.

MIXING

Never split a bag. It is necessary to avoid contamination during this phase. Ensure all equipment and tools are clean. An intensive paddle type mixer has to be used.

Dry mixing: 10 to 30 seconds before adding water; if the product is supplied with *separate binder*, it should be added before dry mixing

Water addition: start with the minimum limits

Mixing time: approximately 5 minutes after addition of water

PLACING OF THE CASTABLE

The castable should be installed within 15 minutes of mixing (for an ambient temperature between 5 and 25°C). Vibrating pokers or external vibrators should be used. However, care should be taken not to over vibrate. The appearance of a flat and shiny surface indicates good densification. Do not smooth with a trowel.

CURING

Forms may normally be removed between 12 and 24 hours after the product has been cast. In cold conditions this period may extend. Generally castable must be maintained in a humid atmosphere for 24 hours after casting. The castable should not be exposed to either freezing or extremely hot conditions during curing.

DRYING AND HEATING UP

Each monolithic refractory lining has to be dried. Too rapid heating up can cause bond disruption, spalling and cracking. For precise control use thermocouples placed on the hot face. A standard curve applying to all situations does not exist, each lining being a particular case.

However for a standard installation up to 200mm thickness, without other products to be dried, the following safe indications should be considered:

ambient to 150 °C	@50°C/hour
at 150°C	Hold 5 hrs
150 to 250°C	@ 50°C/hour
at 250°C	Hold 3 hrs
250°C to service Temp.	@ 75°C /hour

Please contact Calderys for specific drying instructions to suit your installation.

SAFETY

Protection measures indicated in our MSDS should be observed.

DISCLAIMER

These guidelines are intended for information purposes only.

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Users are advised that these guidelines are necessary conditions but may not be sufficient. Specific conditions, such as the nature of the surfaces, the thickness of the linings or their intended use should be taken into account when installing the products.