ADCOCHEM 3660
Refractory mortar 1700°C

DESCRIPTION
ADCOCHEM 3660 is a dry pre-pack powder formulated for installation as air-drying mortar for service temperature exposure of 1700°C.

CHARACTERISTICS

Chemical Analysis:

- SiO₂: ±33.4
- Al₂O₃: ±60.2
- Fe₂O₃: ±1.6

Physical Properties:

- Service Temperature: 1700°C
- Maximum Grain Size: 5 – 6 mm
- General:
  - Water Addition: 28 – 30%
  - Shelf Life: 6 months from date of manufacture, if stored under cover, away from concrete surfaces and at dry temperatures of 10 – 25°C

Packaging:
25 kg paper bags

APPLICATION AND INSTALLATION

ADCOCHEM 3660 is extensively specified for bonding of aluminosilicate bricks.

1. Recommended equipment and installation conditions:
   1.1 Mixer – a paddle-type mixer with good shearing action.
   1.2 Use clean water – drinking quality.
   1.3 Install only at mix temperatures between 10°C and 30°C.

2. Installation instructions:
   2.1 Put the required amount of dry material into the mixer, preferably the entire content of a bag at a time.
   2.2 Mix dry for about one minute.
   2.3 Add 28% of portable water, i.e. 7 litres per 25 kg.
   2.4 Mix for 2 minutes without adding more water to a lump-free homogeneous mix.
   2.5 Check for consistency. If necessary, add small increments of additional water and mix well until a cohesive mortar consistency is obtained. (Test by scooping mortar with a steel trowel and holding it upside down; if no sag occurs, mortar fresh properties are correct.)
   2.6 Total mixing time should not exceed 8 minutes.
   2.7 Transfer mortar into a suitable container that can be air-tightly sealed. Level top surface to 3 – 4 cm below top rim; use a 10 mm rod to force down channels into mortar. Using clean water, fill the container and seal air-tight for 12 hours to ‘sour’.
   2.8 After 12 hours, remove excess water, remix and apply.
   2.9 The installation has to be planned carefully as the contact with air will have the mortar reacting, i.e. od not leave the opened container exposed to air for prolonged periods of time. Once setting has commenced, do not re-temper but discard material.
   2.10 Air-dry for 24 hours (depending on ambient conditions and humidity).

3. Drying and Heat-up schedule (see graphical representation above):
   Where ADCOCHEM 3660 is installed as refractory mortar, it should be exposed to a drying and heating-up cycle as summarized below:
   3.1 Stage 1 – Drying up to 110°C: Please note – no flame impingement during drying procedure. Heat up at 15 - 20°C per hour to 110°C and maintain temperature for 12 hours.
   3.2 Stage 2 – Heating up at 25 - 30°C per hour to 400°C and maintain for 12 hours.
   3.3 Stage 3 – Heating up at 35 - 45°C per hour to service temperature.
   3.4 Please note: If, at any stage, steam is noticed on the hot-face, the temperature is to be held constant until the steam dissipates, then continue.

CLEANING
Clean all tools and equipment immediately with water.

SAFETY
Contact with the skin should be avoided by wearing gloves, eye protection and protective clothing. In case of eye contact, wash well and obtain medical advice.
Remember: Keep away from children, handle responsibly and consider the environment.

UPDATE
May 2017.
This supercedes all previous documentation.