ADCOchem 3616
Refractory plaster 1600°C

DESCRIPTION
ADCOchem 3616 is a dry pre-pack powder formulated as castable for service temperature exposure of 1600°C.

CHARACTERISTICS
Chemical Analysis:
- SiO₂: ±44.2%
- Al₂O₃: ±54.4%
- Fe₂O₃: ±1.1%
- CaO: ±3.5%

Physical Properties:
- Service Temperature: 1600°C
- Bulk Density: 2.35 (g / cm³)
- Compressive Strength: 50 – 54 (MPa)
- Maximum Grain Size: 5 – 6 mm

General:
- Water Addition: 8 – 9%
- 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: 20 kg paper bags

APPLICATION AND INSTALLATION
1. Recommended equipment and installation conditions:
   1.1 Mixer – a paddle-type mixer with good shearing action.
   1.2 Compaction equipment – poker vibrator, recommended high frequency.
   1.3 Use clean water – drinking quality.
   1.4 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 8% of potable water, i.e. 2 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 – material should have a glazed appearance. If necessary, add small increments of additional water up to 2.25 litres per 20 kg and mix well until a cohesive plastering consistency is obtained.
   2.6 Total mixing time should not exceed 8 minutes.
   2.7 Place and consolidate the mix within 15 minutes after mixing. Once setting has commenced, do not re-temper, but discard material.
   2.8 Air-dry for 12 to 24 hours (depending on ambient conditions and humidity).
3. Drying and Heating-up schedule (see graphical representation above):
   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 to 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.