

Fire Protection & Insulation Solutions

20 Dobra Road Yangebup, WA 6164 Ph: +61 8 9418 8826

Mobile: +61 402 002 359

Email: sales@darco.com.au



Instruction and Tips for Mullite Based Castable

Mullite Based Castable is mixing and combining from strictly selected raw materials including mullite aggregates, mullite powder, alumina powder and binders. It can be easily operated together with our specially offered binders in the little plastic bag, just stirring them in a

mixer firstly to be mortar material and then turn into the process of construction.

How to use in the process of construction:

1. Preparing a mixer firstly, putting proper quantity castable into the mixer as per specific requests (note there are one small plastic bag in each package, unpack it and mix the powder together in mixer), after about 2-3 minute, add suitable quantity water (usually 6.5-7.5% by weight, and can be adjusted according to the requirement of construction) into mixer and stir them 4-5 minutes.

Note: If the mortar castable can meet your construction requirements, less water, higher cold crushing strength.

- 2 The best temperature for the construction is between 5-20 $^{\circ}$ C, the added water must be clean(pollution free), if the temperature of the water is below 5 $^{\circ}$ C, you'd better heat it.
- 3 As per construction process, just to be sure take proper quantity materials each time in the mixer.
- 4 Put the material to where you want to use by ramming, casting or vibrating. After construction, the materials should be naturally curing for 3 days. After mixing let the paste sit and rest for 24 hours without applying. Following this 24 hours, start application. The mix cannot be exposed to the sun or high ambient temperature as this would cause rapid loss of moisture. Before doing a complete batch, it is suggested you apply the instructions to a small amount and check workability of the mix powder / water ratio you have applied



Fire Protection & Insulation Solutions

20 Dobra Road Yangebup, WA 6164 Ph: +61 8 9418 8826

Mobile: +61 402 002 359 Email: sales@darco.com.au

Main Properties

Item	Mullite Based Refractory Castable	
Chemical Analysis(%)	Al2O3	>60%
	SiO2	<35%
	CaO	2-3%
	Fe2O3	<1.5%
Max.Service Temperature	(℃)	1550
Bulk Density	g/cm3	>2.5
	110℃	>70
Cold Crushing Strength(Mpa)	1100℃	>80
	110℃	>10
Modulus of Rupture (Mpa)	1100℃	>11
Permanent Linear Change(%)	1000℃	-0.1
Type of bonding		With water/casting or vibration
Storage Period(dry,cool and no frost)		8-10month depending on the storage place and climate.
Package		Kraft paper bag on pallet.

The data shown above is average results of test under standard procedures. There shall be some adjustment in normal mass manufacturing. For more information on the safety application or materials, please refer to the work practices and material safety data sheet.