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VAT Reg. GB 279384016

Mixing Plaster

How do I mix Potters Plaster?

Potters plaster is Plaster of Paris, Calcined hydrated calcium sulphate. It is used to make moulds for slip casting, slump and press moulds and for wedging batts. When mixing plaster, the ratio of water to plaster determines the strength and absorbency of the finished mould, more plaster makes a stronger but less absorbent mould. The plaster mixes are expressed as 110's 120's 130's etc which means the ratio plaster to water, so a 110's mix has 110 parts of plaster to 100 parts water by weight, this would be a weak but very absorbent mould. 120's is a bit stronger and is most suitable for hump and press moulds and for wedging batts, 130's is stronger is for slip casting moulds and the 140's mix is denser and is used to make blocks and cases for making casting moulds.

How do I make an absorbent Plaster Wedging Batt?

1. Calculate the volume of the space to be filled, this is be done by using the formulae:

volume x 5 ÷ 7, this gives you the quantity of water needed. To calculate the amount of plaster required multiply by 1.2 for a 120's mix.

 Make a frame by nailing four pieces of wood together to make a frame 60cm x 60cm x 5cm.

The volume is: 60cm x 60cm x 5cm = 18,000 cc,

Multiply by 5 = 90,000

Divide by 7 = 12,857 say 12.9 litres of water required. (12.9 litres of water = 12.9 kgs)

To calculate the plaster required for a 120's mix multiply by 1.20 :

12.9 x 1.2 =15.48kgs plaster.

3. To mix the plaster, sieve through a 20's mesh and sprinkle the plaster on to the measured amount of water, sprinkle all the plaster onto the water before mixing. You will have about

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6 minutes from mixing to pouring, but if the water is warm, this will be extended. If there are tiny bits of set plaster on the hand while mixing this can cause the plaster to set in less than a minute. Beware that the hand does not become trapped as heat generated in plaster can burn. Mix firmly but gently ensuring that all the plaster is equally wet, avoid creating air bubbles. The plaster will soon become firm but it may take several days to become useable as all the excess moisture dries off. If possible, store in a warm dry room or drying cabinet to speed up the process.