

Mixing Potters Plaster

How do I mix Potters Plaster?

Potters Plaster (sku 3450) is calcined hydrated calcium sulphate, otherwise known as Plaster of Paris. It is used to make moulds for slip casting, slump and press moulds and for wedging/reclaim batts (slabs). When mixing potters 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 of 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/reclaim batts. 130's is stronger still, and for slip casting moulds. The 140's mix is the densest, generally used to make blocks and cases for making slip-casting moulds.

How do I make an absorbent Plaster Wedging/Reclaim Batt?

1. Calculate the volume of the space to be filled by using the formulae:-

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

2. Nail together four pieces of wood to make a frame measuring 60cm x 60cm x 5cm.

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

Multiply by 5 = 90,000 cc

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

To calculate the plaster required for a 120's mix multiply by 1.2:

12.9 x 1.2 = 15.48kg plaster.

3. To mix the plaster, sieve through a 20's mesh to remove lumps and sprinkle the plaster on to the measured amount of room-temperature water. Sprinkle all the plaster onto the water and allow powder to fully submerge before mixing. You will have about 6 minutes from mixing to pouring, but if the water is warm, this time will be extended. If there are tiny bits

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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 the heat generated in plaster can burn. Mix firmly but gently to avoid creating air bubbles, ensuring that all the plaster is thoroughly wet. 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.

Disclaimer: Technical advice

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