

CRACKING IN RAW CLAY

- Every 'join' is a potential drying crack. Make sure that the bigger, the thicker or the more joins in a piece of work, the slower the drying process.
- Irregular thickness throughout a single piece is a major potential cracking hazard. Dry pieces slowly and at a rate that suits the most problematic/thickest section.
- The location for drying work (shelves, sills and benches near windows or doors) can create problems with uneven drying. Work will become too hot on one side in sunny weather, too cold in cool weather or too dry on one side in windy weather. Dramatic differences in the temperature whilst drying a piece of work only means TROUBLE.
- Pottery is ideally dried on cement sheeting or timber boards - NOT laminex, glass or plastic sheets. These mediums will not allow drying on the base and subsequently create cracking problems as the work dries and tries to shrink. Most clays shrink by at least 5% from the wet to dry stage.
- Even and slow drying is important for tiles – they must be sandwiched between 2 boards to ensure slow and even drying, and no warping.
- Never dry a thrown form which is still holding water (i.e. in the bottom of a thrown bottle form) because it will invariably crack. Tip any excess water out before commencing drying. It is also important to compress the base of all thrown ware while still on the wheel to prevent stress cracks.
- Each clay has its own character. This character must be respected and cannot be changed to suit you. You need to work with the clay, not against it. This will require experience and patience. Alternately, ask your clay supplier to recommend a 'forgiving' clay (i.e. usually a coarse handbuilding clay) which will take almost any punishment.
- NEVER SPEED DRY using hairdryers, heaters or the kiln.
- Some pottery faults happen because you have not prepared or handled your clay appropriately. Always ensure that clay is de-aired (commercial clay is de-aired), that you do not create uneven stresses in the clay from poor technique (i.e. slab rolling in one direction on only one side of the clay) and that the work is made with the most consistent wall thickness possible throughout the form.

CRACKING IN FIRING

- Generally caused by heating too fast or cooling too fast in the kiln. (If you are worried, try 50°C/HR as a conservative heating rate and then increase the rate once you are firing successfully).
- Firing will MAGNIFY and ACCENTUATE any faults created in the work in the raw stage. If pottery is not dry before firing hairline cracks enlarge, stress cracks appear, and steam cracks become apparent etc.