



TIPS TO AVOID CRACKS IN PLASTERING

UltraTech
C E M E N T

The Engineer's Choice

PLASTIC SHRINKAGE CRACKS AND DRYING SHRINKAGE CRACKS

Plastic shrinkage cracks are formed when an excessive amount of water is lost by evaporation from the plaster in the early hours after application.

Drying Shrinkage cracks are formed because of moisture loss after the plaster has hardened.



Plastic Shrinkage Cracks



Drying Shrinkage Cracks

CAUSES

- ✓ Excessive loss of water from the mortar
- ✓ Use of high cement content, poor quality sand and high water content for the mortar
- ✓ Discontinuity in surface, thermal expansion or rapid drying
- ✓ Excessive shrinkage due to application of thick coat of plaster

PREVENTION

- ✓ Lightly sprinkle water after 30 minutes of finishing the plaster surface
- ✓ Cure the plaster surfaces properly and adequately
- ✓ Maintain adequate time intervals between undercoats and subsequent finishing coat
- ✓ Wet the surface to be plastered before commencing plastering
- ✓ Keep maximum plaster thickness of 20mm

REMEDY

- ✓ These cracks can be filled with appropriate filler and painted over

CRAZING AND MAP CRACKING

Crazing - Formation of a network of fine cracks, usually in a hexagonal pattern. These cracks are very shallow and do not extend through the whole depth of the plaster.

Map cracking - These are similar to crazing, but it is usually deeper compared to crazing cracks.



Crazing

CAUSES

- ✓ Over trowelling of rich mortar mix (with high cement content)
- ✓ Use of sand with excessive (more than 15%) silt or dust particles
- ✓ Due to improper and inadequate curing
- ✓ Rapid drying of the plaster

PREVENTION

- ✓ Use well-graded sand and the most suitable proportions of cement and sand (1:3 to 1:6)
- ✓ Avoid overworking of cement finishes to prevent shrinkage at the top layer
- ✓ Provide adequate curing, minimum for 10 days

'Rough textured surfaces are generally less likely to show cracking than smooth finishes.'



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UltraTech Cement Limited

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