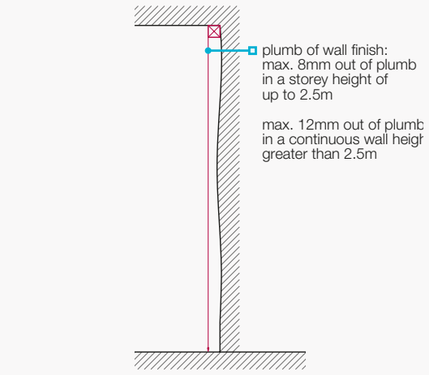
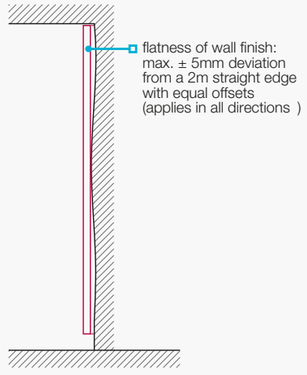
WALLS & CEILINGS

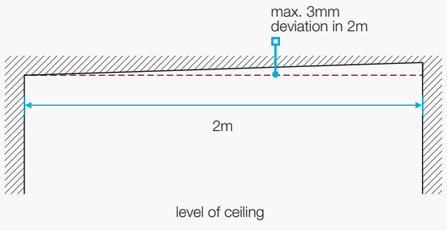
- Wall & Ceiling Finishes
- Window Reveals
- Micro Cracking

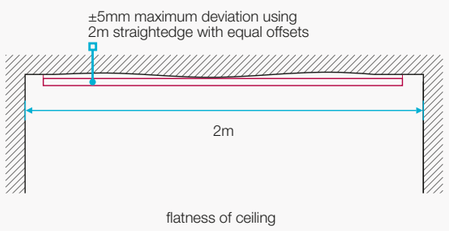
WALL & CEILING FINISHES

1. Walls and ceilings surfaces must be reasonably uniform, although there may be minor textural differences around lights and other fittings.
2. Flatness of wall deviation from a 2m must have maximum 6mm.
3. There must be no visible gaps between fittings and the surface (e.g. around switch plates).
4. Jointing tape must be fully covered and unobtrusive in the finished surface.
5. Deviation in the level of ceiling finishes should be a maximum of 8mm over 2m.
6. Any paint splashes must be removed from light switches, sockets and fans.
7. For ceilings with a span of greater than 6, maximum tolerance of 20mm out of level.





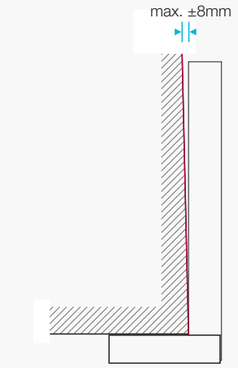




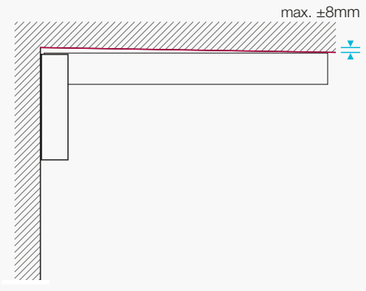
WALL & CEILING FINISHES

WALL & CEILING FINISHES

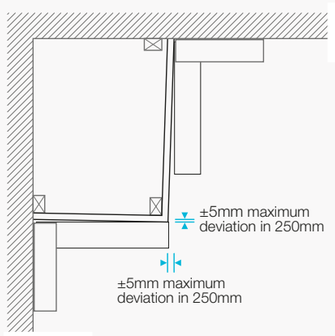
1. Setting out of corners, duct casing, access covers and any associated framing must be square, neat and tidy, and provided with an appropriate decorative finish.



±8mm deviation of square in 500mm



±8mm deviation in 500mm



Must be inspected
in daylight and from a minimum distance of **1.5m** not by shining light on the surface.

Have you checked…

ELEC: 94 **PAI:** 96, 98

WALL & CEILING FINISHES

BOARD JOINTS & TAPE

1. Jointing tape must be fully covered and unobtrusive in the finished surface.
2. Joints between boards must be neatly formed, flush, and suitably finished – and therefore not visible on a finished wall (as per manufacturers specifications).
3. Blown tape can occur between plaster board joints where the drying out process exposes the tape and jointed areas of the room. Affected areas must be removed and repaired before home is finished.

Must be inspected
in daylight and from a minimum distance of **1.5m** not by shining light on the surface.

NAIL / SCREW POPPING

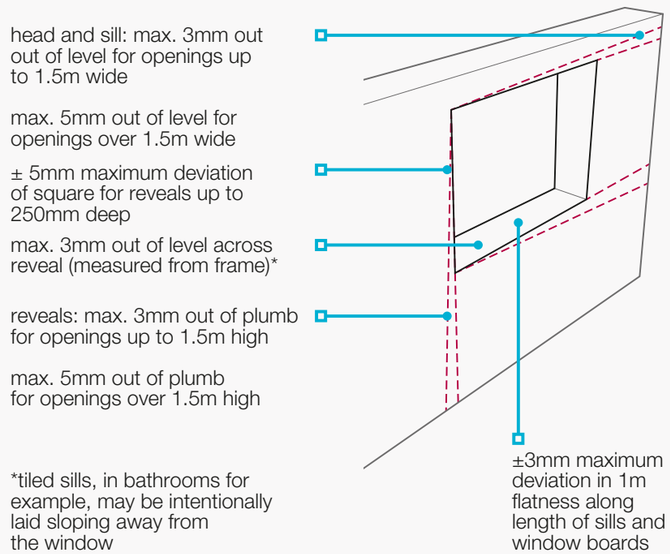
1. All surfaces must be smooth and free from nail holes, cracks and splits.
2. At internal inspection stage, nails or screws must not be visible on plasterboard surface.
3. Due to shrinkage occurring in the home, these may become visible over time and the customer must be advised this is quite normal.

Have you checked…

PAI: 96, 98

WINDOW REVEALS

1. See information below.



Frames should not be distorted in the opening.

Frames should be within 5mm of plumb over the height of the frame and not be out of plumb in two directions.

Have you checked…

WIN: 142, 158, 173, 208, 225, 263, 317

MICRO CRACKING

WHAT IS MICRO CRACKING?

1. Micro cracking is the noise caused by the differential movement of materials against one another, namely the underside of a timber joist and the back side of a ceiling plasterboard. The friction between these two materials causes the noise known as micro cracking. Plasterboard is an inherently stiff material which does not stretch whilst timber is able to stretch under load. The differential movement is a matter of millimetres but it is significant enough to make the noise.

2. There are many noises that emanate from the floor such as general footfall, creaking and squeaking of partitions and straight forward noise transfer. Such noise incidents, although they may be present, are not what are being considered here.

NEXT STEPS

1. To avoid micro cracking becoming an issue within the property, teams should refer to Technical Bulletin TB 00146-07-19 ‘Blocking to ‘I’ Joists’ for more information. This can be found on Dochosting or by speaking to your Site Technical Advisor. Micro cracking is usually easily identifiable, but can take two persons to diagnose properly.

2. To inspect for micro-cracking, one person should walk across the floor, at normal pace and stance, whilst another person stands in the room space below the floor which is being walked upon. Whilst normal footsteps emulating as ‘dull thuds’ are likely to be heard, what should not be present is the sound of what appears to be ‘cap gun shots’ taking place, i.e small higher pitched repetitive ‘popping’ noises. We should be cautious not to misdiagnose this with squeaks or creaks which can be present under normal conditions. However, if you are able to hear a noise which you believe to be micro cracking, it is possible the floor requires remediation as per the Technical Bulletins, and further guidance should be sort from the SiteM and Site Technical Advisor. For HQI purposes, this becomes a ‘Not Ready’ item until resolved.

MICRO CRACKING

MICRO CRACKING

BLOCKING TO ‘I’ JOISTS

Background

1. The anomaly of micro cracking has been evident in several regions which led to two previous Technical Bulletins, TB 0120/10/15 and TB 0113/08/13, being issued in an attempt to rectify the situation.

2. Although the bulletins did result in a reduction in the number of incidents reported, it did not eliminate the problem altogether. With that in mind further research and engagement, with a timber specialist was undertaken.

3. Not all noise incidents reported were because of micro cracking. However where micro cracking was evident, it was felt that the rotational forces applied to the bottom flange of the joists under load could be the resulting factor that introduces the noise incident. Like previous investigation micro cracking noise incidents do not always occur on the same house types or similar spans.

4. Although not structural, incidents were still occurring which were both disruptive to our customers and costly, it was felt that further options should be explored to see if the number of incidents could be reduced further if not eliminated altogether.

TW ACTIONS

1. In line with the thought process that rotational forces may be playing a part in micro cracking noise incidents, it was agreed to conduct site trails whereby solid blocking would be introduced to the bottom flange.

2. The blocking introduced was in the form of an ‘I’ Joist turned on its side and glued with D4 and screwed to the top of bottom flange of the joist. It was agreed that blocking would apply on the following situations:

   i. No Blocking to joist spans less than 3m in length
   ii. One row of blocking to be inserted centrally for spans between 3-5m in length
   iii. For spans greater than 5m in length two equidistant rows of blocking are required

   Site trails had been undertaken over the last 12 months with only one reported incident occurring which has been attributed in part to the installation. To this end, it was felt the trial was successful and blocking should be introduced.

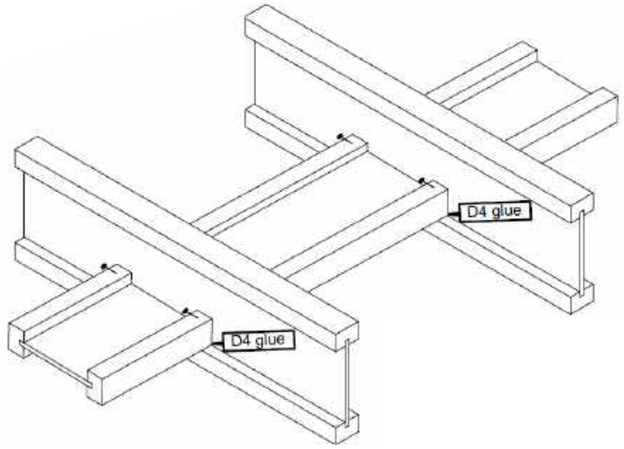
MICRO CRACKING

TW ACTIONS

3 All TW standard house type portfolio joist layout in both the consolidated range and issue 7 designs, have now been updated to show the requisite blockings.

4 Blocking pieces should cut be 5mm smaller than the tight size between flanges and finally screwed after initial curing.

BOTTOM FLANGE I-JOIST BLOCKING DETAIL



3M Span – No blocking required.
3 - 5M Span – 1 row of blocking required.
> 5M Span – 2 rows of blocking required.

- Blocking supplied at 585mm long. To be cut to length on site where required.
- Blockings may be supplied in mixed widths / depths.
- FJI blockings fixed with D4 glue, screwed to top of lower flange of joist(s).
- Horizontal blocking may be staggered if required to avoid services.

Note: The blocking arrangement does not currently apply to cassette floors in timber frame but will apply if the floors are supplied as loose joists for assembly on site. We will however continue to monitor any reports of micro cracking in timber frame to see if blocking is required.

MICRO CRACKING

MICRO CRACKING

TECHNICAL DIRECTORS

1 Designs containing the new blocking arrangements to be issued for all new sites and phases, with effect from the issue of this Technical Bulletin.

On existing development where, micro cracking has or continues to be experienced, we strongly recommend that the joist layout be updated to incorporate the new blocking arrangement.

2 For those developments where, micro cracking has not been experienced, we recommend that the regions consider introducing the new blocking arrangement to provide some additional comfort. In any event as of the 1st January 2020 all developments must have moved over to the new blocking arrangement.

The use of resilient bars is not required as part of the system design. Where resilient bars are being installed to limit micro cracking noise incidents, regions should move away from this approach and utilise the new blocking arrangement instead.

COMMERCIAL DIRECTORS

1 To ensure that in line with the actions to be taken by the Technical Directors that all orders placed on new sites and phases contain the updated joist layouts incorporating the blocking arrangement.

2 For all existing developments to consider the early adoption of blocking and removal of resilient bars where present.

In any event all developments to have the new blocking arrangement in place by the 1st January 2020.

PRODUCTION DIRECTORS

1 To ensure that on all new site starts and phases that you have the correct designs incorporating the blocking arrangement to the flange.

To ensure that blocking is installed and fixed in line with the manufacturers requirement and notes contained on the joist layouts.

2 For existing sites, where a change is made to the new blocking arrangement, to clearly record form which plots the change has been made and this information is retained for future reference.