



# Thin-Set Troubleshooting Guide for Cement Backer Board Substrates

## TDS 208

Complaint	Cause(s)	Prevention
<b>Cracked Tiles or Grout</b>	<ol style="list-style-type: none"> <li>1. Deflection in substrate</li> <li>2. Improper installation of cement backer board</li> <li>3. Lack of movement joints</li> <li>4. Not enough thin-set on the back of the tile</li> <li>5. Improper tile adhesive selection</li> </ol>	<ol style="list-style-type: none"> <li>1. Substrate deflection rating of L/360 must be met to accept tile. Substrate deflection rating of L/480 must be met to accept stone. For proper installation of cement backer board, follow board manufactures recommendation and <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>2. Use correct thin-set mortar to laminate cement board to the substrate. Use recommended thin-set mortar for application. Follow <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>3. Follow Tile Council of North America (TCNA) Detail EJ171 for recommendation of placement of movement joints.</li> <li>4. Use recommended notch trowel for setting larger format tiles. Tiles larger than 8" x 8" (200mm x 200mm) require back-buttering for proper installation. Periodically check coverage and bond by picking up freshly installed tile and inspecting.</li> <li>5. Use recommended thin-set mortar for application</li> </ol>
<b>Loose Tile</b>	<ol style="list-style-type: none"> <li>1. Deflection in substrate</li> <li>2. Improper installation of cement backer board</li> <li>3. Improper thin-set used</li> <li>4. Movement or settlement of substrate</li> <li>5. Lack of movement joints</li> <li>6. Floor subjected to stress prior to recommended curing period</li> <li>7. Substrate surface not cleaned</li> <li>8. Thin-set dried out before tile is laid</li> <li>9. Kiln release or residue on back of tile</li> <li>10. Not enough thin-set on the back of the tile</li> </ol>	<ol style="list-style-type: none"> <li>1. Substrate deflection rating of L/360 must be met to accept tile. Substrate deflection rating of L/480 must be met to accept stone. For proper installation of cement backer board, follow board manufactures recommendation and <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>2. Use correct thin-set mortar to laminate cement board to the substrate. Use recommended thin-set mortar for application. Follow <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>3. Use 254 Platinum, 257 TITANIUM™, or MULTIMAX™ LITE.</li> <li>4. Investigate floors and walls throughout project for cracks, levelness, and proper joist spacing. Ensure that the floor construct meets industry and LATICRETE standards. See <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>5. Follow TCNA Detail EJ171 for recommendation of placement of movement joints.</li> <li>6. Allow the installation to cure properly before opening to use or traffic.</li> <li>7. Surface must be free of contamination (e.g. sealers, curing compounds, coatings, oil, paint, dirt and dust). Chemical cleaning is not recommended.</li> <li>8. Spread only enough thin-set mortar that can be covered within 15 to 20 minutes. Dampen substrate to allow for more open time with thin-set.</li> <li>9. Be sure to remove contaminants on the back of tile so as ensure proper adhesion of tile to thin-set.</li> <li>10. Use recommended notch trowel for setting larger format tiles. Tiles larger than 8" x 8" (200mm x 200mm) require back-buttering for proper installation. Periodically check coverage and bond by picking up freshly installed tile and inspecting.</li> </ol>

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<b>Hollow Sounding Tile</b>	<ol style="list-style-type: none"> <li>1. Deflection in substrate</li> <li>2. Improper installation of cement backer board</li> <li>3. Movement or settlement of substrate</li> <li>4. Substrate surface not cleaned (Poor contact)</li> <li>5. Kiln release or residue on back of tile</li> <li>6. Lack of movement joints</li> <li>7. Not enough thin-set on the back of the tile</li> </ol>	<ol style="list-style-type: none"> <li>1. Substrate deflection rating of L/360 must be met to accept tile. Substrate deflection rating of L/480 must be met to accept stone. For proper installation of cement backer board, follow board manufactures recommendation and <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>2. Use correct thin-set mortar to laminate cement board to the substrate. Use recommended thin-set mortar for application. Follow <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>3. Investigate floors and walls throughout project for cracks, levelness, and proper joist spacing. Ensure that the floor construct meets industry and LATICRETE standards. See <a href="#">TDS 126</a> and <a href="#">TDS 133</a>.</li> <li>4. Surface must be free of contamination e.g. sealers, cleaning compounds, coatings, oil, paint, dirt and dust. Chemical cleaning is not recommended.</li> <li>5. Be sure to remove contaminants on the back of tile so as ensure proper adhesion of tile to thin-set.</li> <li>6. Follow TCNA Detail EJ171 for recommendation of placement of movement joints.</li> <li>7. Use recommended notch trowel for setting larger format tiles. Tiles larger than 8" x 8" (200mm x 200mm) require back-buttering for proper installation. Periodically check coverage and bond by picking up freshly installed tile and inspecting.</li> </ol>
<b>Tiles Tenting</b>	<ol style="list-style-type: none"> <li>1. Lack of movement joints</li> </ol>	<ol style="list-style-type: none"> <li>1. Follow TCNA Detail EJ171 for recommendation of placement of movement joints.</li> </ol>

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>  
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**LATICRETE INTERNATIONAL, INC.** ▪ 1 LATICRETE Park North ▪ Bethany, CT 06524-3423 USA  
800.243.4788 ▪ [support@laticrete.com](mailto:support@laticrete.com) ▪ [www.laticrete.com](http://www.laticrete.com)

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