Sound Control Underlayment Troubleshooting Guide

TDS 206

170 Sound & Crack Isolation Mat

Complaint	Cause(s)	Prevention
Cracked Tiles/ Grout	1. Deflection of suspended slab 2. Lack of movement joints 3. Movement or settlement of substrate	1. Substrate deflection rating of L/360 must be met to accept tile and sound control mortar. Substrate deflection rating of L/480 must be met to accept stone and sound control mortar. 2. Follow Tile Council of North America (TCNA) Detail EJ171 for recommendation of placement of movement joints. Isolate perimeter of installation and all restraining surfaces with foam expansion spacers. 3. Ensure that construct meets industry guidelines.
Loose or Hollow Sounding Tile or Stone	1. Deflection of suspended slab 2. Lack of movement joints 3. Sound control underlayment not installed properly 4. Substrate surface not cleaned 5. Subjected to stress prior to recommended cure time	1. Substrate deflection rating of L/360 must be met to accept tile and sound control mortar. Substrate deflection rating of L/480 must be met to accept stone and sound control mortar. 2. Follow TCNA Detail EJ171 for recommendation of placement of movement joints. Isolate perimeter of installation and all restraining surfaces with foam expansion spacers. 3. Install 170 Sound & Crack Isolation Mat per installation instructions on DS 170.0. 4. Substrate must be free of contamination (e.g. sealers, curing compounds, coatings, oil, paint, dirt and dust). Clean contaminants from surface by sandblasting, shot-blasting, water blasting, bush hammer, machine grinding or other means of scarification. Chemical cleaning is not recommended. 5. Allow a sufficient amount of time for sound control mortar to set firm prior to opening to traffic or use. Isolate perimeter of installation and all restraining surfaces with foam expansion spacers.
Tiles Tenting	1. Improper movement joint design	1. Follow TCNA Detail EJ171 for recommendation of placement of movement joints. Isolate perimeter of installation and all restraining surfaces with foam expansion spacers.
Sound Ratings Not Met	1. Lack of perimeter isolation 2. Floor structure is not adequate	1. Isolate perimeter of installation and all restraining surfaces with foam expansion spacers. 2. IIC rating of floor structure (e.g. concrete) is not high enough to attain necessary IIC rating of entire assembly. For example, ΔIIC of 170 Sound & Crack Isolation Mat is 16; if an IIC of 50 is required, the floor structure must achieve a minimum IIC rating of 34

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