

## The Solid Concrete Tile

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Speaking of the concrete tile, we have to mention the clay tile first because the clay tile has longer history and is well known for its quality and durability by everybody. Clay tile is formed by vetrification at high temperature. It is more expensive and strict on installation. Therefore it is not widely used on the construction nowadays. Instead, concrete tile is accepted although it is still costly.



Concrete tile belongs to high end roofing material not only because it is expensive but there is extra requirement on the roof attic structure in order to accommodate its application. The builder has to use 2x6 roof structure other than regular 2x4 due to the weight of the tile. To some extent it costs more to build a house, which means better quality. Normally Concrete tile can last 40 to 50 years. Some contractors even say life long time. Does this mean we have no worry and can leave it alone after installation? The answer is no. All the conditions happening on other roof materials can appear on concrete too. Especially, comparing with wood and asphalt shingles provide 3 or 2 layers protection to the roof, the concrete tiles only offer single layer on roof for its weight and configuration. Once there are missing, crack and displacement, the underlayment will be exposed to weather. The roof leaking is sooner or later.

Hence, the requirement of tile roof maintenance is essential and even more than other roofing materials. In this case, it does not seem to make sense that why we should pay more for more work. First, we should know the earth movements never stop. The building structure will move along with it and so does the roof which may subject displacement and crack. Besides the inherent deficiency, the mechanical impact including human & animal behaves, power wash as well as frost and thaw effect all are the causes to the above damage. Once a time, it was interesting that a home owner asked me about his tile roof, which always has visitor crows eating on it. He worried that they could crack the tile because he heard the peck on the roof. Actually, I am not afraid of tile crack due to pecking. But it seems the food residue & dropping are too much on the roof which will sustain the moss and mold. These will hold the moisture and frost and thaw damage is potential. Annual clean is necessary. Moreover, although the tile has long life, it is not necessary with the fasteners which may fail earlier. Therefore, It is critical that the initial construction and the materials adopted decide the life and maintenance of the tile roof.