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Setting the Limits of Concrete under Extreme Fire Conditions by [Will Peartin](#)

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Don't get the wrong idea; concrete is as resistant to fire as Superman is resistant to a barrage of bullets. However, under extreme temperatures, concrete can also sustain damage if exposed to heat for a long period. Know what must be done if your concrete building suffers damage from a raging blaze.

The Concrete Centre, a UK-based organization on concrete information and research, agrees that concrete can literally "take the heat." Since concrete is a poor heat conductor, in normal fire conditions, concrete components won't distort or crack under pressure. However, it pays to know how concrete will react when your typical building fire goes beyond the normal. The centre's findings on concrete and fire are the following:

300 degrees Celsius: The concrete starts to lose its strength at this temperature, although the deeper layer of concrete is well below this reading. The first few inches of concrete will get hotter than the specified temperature, which may cause some concrete pieces to break away. This alone is a clear sign that the structure of concrete can be compromised in a fire.

550 degrees Celsius: At this temperature, concrete undergoes a major chemical change known as concrete creep. To put it simply, this is when concrete distorts under intense pressure just as steel would distort under searing heat. Engineers point out that creep won't necessarily cause a concrete component to fail or break, but it can affect the structural integrity of the entire building.

600 degrees Celsius: If there's enough combustible material in the building, the fire can easily reach or break the 600 limit. Concrete won't be able to sustain its full load-bearing capacity at such extreme conditions. In fact, engineers quickly perform South Florida concrete restoration after fires as hot as 300 degrees Celsius and above. In this case, the concrete exposed to such temperatures is removed and replaced.

If repairs can be made in the shortest amount of time, further damage to the building can be prevented. It is for this reason that South Florida fire restoration commences shortly after the fire has subsided. The Concrete Centre says the speed of repair work is crucial to prevent business ventures and homes from literally crumbling down.

You can access an online copy of The Concrete Centre's whitepaper at their official Website at ConcreteCentre.com. Fortunately, you can prevent concrete from ultimately faltering by making quick work of South Florida concrete restoration services.

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