# Top Non-destructive Testing Solutions for RAAC concrete

Reinforced Autoclaved Aerated Concrete (RAAC) is a type of lightweight concrete that is often used in construction projects. However, RAAC can be susceptible to damage over time, so it is crucial to inspect it regularly.

There are a variety of non-destructive testing (NDT) methods that can be used to inspect RAAC concrete. These methods enable efficient assessment of the concrete's condition without causing any damage.

Non-destructive testing begins with intelligent inspection software to facilitate efficient project workflow, data management and fast reporting. Software such as Screening Eagle Inspect enables you to create a 3D image of the concrete, pinpoint to the exact location and start capturing the NDT data. Photos, notes and drawings can be added anytime, keeping everything in one place for one-click reports.

## Effective NDT solutions for RAAC testing

### Ultrasonics

The first NDT solution for RAAC concrete is a wireless ultrasonic sensor like the Pundit PD8050. All you do is push the lightweight sensor into the concrete from one side only. it sends ultrasonic signals through the concrete to measure its velocity. The higher the velocity, the better the quality. The data can be visualized in real-time in several ways including heatmaps, 2D/3D and augmented reality. This information then be used to compare the condition of the RAAC concrete to known standards.

### Ground penetrating radar (GPR)

The second thing that needs to be understood is the location of the steel rebars inside the concrete. One of the easiest ways to do that is with a concrete GPR scanner like the Proceq GP8800 for scanning tight spaces, the multi-usage GP8000, or the GP8100 for large areas. You simply put it on the RAAC concrete, push it along and then on the iPad you will see in real-time where the rebar is and check it is properly positioned. The data is captured efficiently and remains accessible from anywhere, anytime.

## Rebound Technology

The third thing is understanding the strength of the concrete. You could take a core sample but that's going to make ithe quality inferior, or maybe even unstable. Instead, you could use a Schmidt hammer to measure the compressive strength of the concrete. All you do is directly the push the Schmidt hammer directly on the concrete. Rebound hammer testing will give you an idea of how hard the material is, enabling you to compare good RAAC with bad RAAC, and to identify where the concrete is weak or damaged - fully non-intrusive.

## Mechanical

And last but not least, if you think the Schmidt hammer may still be a little bit too forceful, you could use a mechanical instrument called a pendulum testing (PT) hammer like the Schmidt OS-120. This hammer is used to measure the surface hardness of the concrete. It is used mainly to understand low strength concrete but also for the likes of plasterboard. All you do is move it along on the concrete, press the button and then you have a value to compare good with bad. This information can be used to identify any areas where the concrete may be delaminating.

Capturing the data on one platform (Inspect), together with non-destructive testing solutions, you have all information about the asset in one place so you can make all the right decisions and store the data securely for future inspections, forever.

# Additional benefits of Screening Eagle's RAAC concrete testing solutions:

- Highest possible accuracy to provide reliable data that you can trust.
- Easy to use design so you can complete your inspections quickly and efficiently.
- Democratized solutions for a cost-effective way to inspect and protect RAAC concrete assets.

And there you have it, a connected ecosystem to calculate and capture all the data needed to accurately assess RAAC concrete. Contact us today to learn more about our RAAC concrete testing solutions and to schedule a free demo.