



“Not Just Rust”

Corrosion is often viewed as a “necessary evil” to be tolerated and ignorance often the cause of many premature, unexpected and expensive failures.

Research has shown the economic loss of corrosion costs in South Africa is $\pm 4\%$ of its GDP. That means the direct cost of corrosion to each of us is around R250 per month. Based on the research, one ton of steel could turn to rust every 90 seconds and 50% of every ton of steel is used to replace corroded steel. Indirect costs are at least three times the equivalent to the direct costs. However, several independent studies have shown that 25% of the abovementioned effects and costs of corrosion can be prevented by applying known technology. This places a significant emphasis on the importance on corrosion education.

When it comes to the science of corrosion, research, and the study of corrosion mitigation in general, there is not enough done at schools and universities to make people aware of and to study corrosion. Typically, at universities one finds that a single module dealing with corrosion is part of a program such as metallurgy or material science. At postgraduate level it is dealt with if a student selects to do a research project that is concerned with corrosion. At secondary school level no students are exposed to the studies of corrosion apart from an annual invitation to attend our annual Corrosion Awareness Day.

There is a perception that corrosion mainly involves materials and chemicals and although this forms part of what corrosion encompasses it is by no means only students

within these disciplines that come face to face with corrosion issues. One finds that even engineers and scientists in other disciplines also come to deal with matters caused by corrosion. For example, the steel reinforcing in reinforced concrete can rust, the electronic boards in control systems can corrode and even a structure's strength can be compromised. Thus civil, electrical, mechanical and structural engineers/technologists/scientists will also have to deal with corrosion at some point in their lives. However, corrosion is not introduced into the course in such disciplines and many of these engineers and scientists and technologists are only introduced to the theory of corrosion and its mitigation by courses such as those offered at the Corrosion Institute of Southern Africa.

Why should we care? There is a massive health and safety risk, financial implications and environmental impact if we do not take care of our respective assets. The Corrosion Institute of Southern Africa is the only body that offers in depth corrosion training programmes, equipping you with the right skills and knowledge. For more information on what the Corrosion Institute offers please contact our offices at 010 224 0761.

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