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ACA NZ BRANCH WELLINGTON MEETING REPORT

On 7 May, a small group of ACA and SCANZ members were guests of Mark Johnson of Perry Metal Protection for a tour of their hot dip galvanizing plant at Gracefield, Lower Hutt. This was followed by an illustrated technical presentation by Peter Golding, CEO of the Galvanizing Association of Australia, at the adjacent premises of Steel & Tube.

Peter's subject was 'Major Revisions to AS/NZS 4680 in 2025'. His discussion included the new class of ultra-low reactivity (ULR) steels, typically aluminium-killed with Silicon <0.01%, that can form a lower coating thickness unless abrasive blast cleaned before dipping. Also, that the long-term durability of galvanized ULR steels in a corrosivity zone is effectively the same, when calculated using the 30-year steady state corrosion rate from ISO 9224, as conventional steels when calculated using their 1st year corrosion rate, as given in Table 6.2 of AS/NZS 2312.2.

His summary of the key changes to our hot dip galvanizing standard were:

- 1. Effectively an all-new Standard with improvements to user readability and content
- 2. All design requirements are now referenced to AS/NZS 2312.2
- 3. Acceptance inspection method is fully documented
- 4. Clarification and expansion of requirements regarding appearance of the HDG coating
- New and complete method for the assessment of HDG coating thickness consistent with ISO 1461
- 6. New guidance is provided for reinforcing steels and methods used to obtain thicker coatings



Left: Peter Golding at the presentation

Right: Attendees at the tour of Perry Metal Protection's Gracefield plant



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NEW ZEALAND BRANCH



Older ACA NZ members have probably seen a number of situations that may never have made it to a textbook.

CORNER

If you have a question you'd like clarification on, email it to the Editor at lesboultonrust@gmail.com. We'll pose it to our panel of experts who will answer it in another Bulletin, so everyone can improve their knowledge.

Q: Do polymeric materials undergo corrosion?

& A: Yes

Polymeric materials (polymers) have wide applications and there are many factors that can lead to corrosion in these materials. The lifetime of a polymeric material cannot be accurately foreseen in a specific corrosive atmosphere, and so it is necessary to clearly understand the compositions and reaction mechanisms of polymers.

Polymeric materials are often plastics, but also include elastomers. They are used to make perishable foam, renewable plastics, films and coatings. Based on their cross-linking network, polymeric materials are classified as:

- Thermoplastics, which don't contain cross-links. These soften upon heating and they can be repeatedly reshaped.
- Thermosets, which are densely cross-linked. These soften gently and ultimately degrade upon heating.
- Elastomers, also known as rubbers, which are cross-linked networks that are deformed by modest force.

Because polymeric materials do not experience specific corrosion rates, they are typically either fully corrosionproof against a selected corrodent (within specific temperature ranges), or they may deteriorate quickly. They can be attacked either by chemical processes or by solvation. Solvation causes the swelling, softening and failure of polymeric materials.

According to the attack mechanism, the corrosion of polymeric materials can be classified in the following ways:

- Disintegration or degradation of a physical nature owing to absorption, permeation, and solvent action
- Oxidation, wherever chemical bonds are attacked
- Hydrolysis, wherever ester linkages are attacked
- Radiation, such as UV radiation causes embrittlement
- Thermal degradation involving depolymerisation
- Any combination of the above

The result of such attacks can include softening, charring, crazing, delamination, embrittlement, discoloration, dissolving or swelling.

Therefore polymeric materials are not "corrosionproof". To prevent failure of polymers we have to understand the complexities of degradation of these different materials. The field of polymer corrosion often requires special expertise which is often hard to find.



Cracking and failure of thick walled polypropylene (PP-R) hot water pipe used in HVAC systems that also contain copper pipes This failure mechanism is called oxidative stress-cracking.

Acknowledgement: www.corrosionpedia.com





CAR COMPANY IN COURT OVER "RUST AND CORROSION" CONCERNS



The ACCC alleges that LDV has made 'misleading representations' about certain vehicle models

Australia's consumer watchdog (ACCC) has taken car manufacturer LDV to court for the alleged "misleading advertising" of certain vehicle models which tend to "rust or corrode" within five years of being built. It alleges the manufacturer made "misleading representations" to consumers about the "durability and suitability" of certain vehicle models in breach of Australian consumer law.

These representations included that models with T60 and G10 in their names (excluding the eT60) were durable and tough and that they were suitable for use in, or near, or on, a variety of environments and off-road terrains.

LDV dealerships sold more than 60,000 T60 and G10 models between 2018 and 2024. The ACCC said that LDV had received more than 5000 consumer complaints for rust or corrosion in those models during that time.

The ACCC also raised concerns about the 10-year anti-corrosion warranty for the T60, advertised between April 2019 and August 2020. It alleged this indicated the vehicles "did not have a material risk" of developing rust or corrosion in the first 10 years of manufacture.

The ACCC also alleged that by April 2019, LDV was aware that rust or corrosion issues were "prevalent" in the T60 and G10 within within five years of manufacture. As a result, ACCC allege that LDV's conduct is likely to have caused harm to affected consumers.

"The propensity for rust or corrosion lowered the value of their vehicles, and because consumers lost the opportunity to make an informed decision that may have involved purchasing an alternative vehicle that did not carry the same risks," it said. The ACCC is seeking penalties, declarations, consumer redress, costs and other orders.

Source: ABC NewsMail 23 April. https://www.abc.net.au/news/2025-04-23/ldv-automotive-australia-taken-to-court-by-accc/105206722







Kia ora, my name is Lakein Cottam, and I work as a Cathodic Protection Technician based in Taranaki, New Zealand. I got my start in the trades as a drainlayer, which gave me a practical understanding of infrastructure and the systems that support it. That experience laid the groundwork for my transition into corrosion prevention—a field I've grown increasingly passionate about as I've developed both technical and field-based knowledge.

Attending the ACA Corrosion & Prevention Conference in Cairns was an eye-opening and motivating experience. While the technical presentations and insights from industry leaders were incredibly valuable, one of the most meaningful parts of the conference for me was the people.

I went over thinking I'd be a small fish in a big pond surrounded by professionals with far more experience and knowledge. As a young woman in the industry, I expected to feel out of place, maybe even beneath the level of intelligence in the room. But the individuals I met completely changed that. Everyone I spoke with

Report from winner of 2024 Phoenix Solutions ACA Foundation Scholarship

was open, encouraging, and genuinely interested in what I had to say. There were no egos, just shared passion for the industry. That sense of belonging gave me a real boost in confidence and reminded me that we all have something valuable to contribute, no matter where we are in our journey.

Being surrounded by such a welcoming community helped me realise how much potential this industry holds—and how much I want to be a part of shaping its future.

I return from the conference with renewed energy, a fresh perspective, and a stronger sense of confidence in the work I do. I've gained practical insights into corrosion management that I'm excited to apply, and I've also connected with others who are passionate about this industry—which has been unexpectedly inspiring. The conversations I had and the stories I heard gave me a clearer picture of where I want to go professionally.

I would like to sincerely thank Sean and the team at Phoenix Solutions and the Australasian Corrosion Association Foundation (ACAF) for supporting my attendance. Your investment in young professionals like myself truly makes a difference. I'm also very grateful to my employer, Firstgas, for allowing me the time and opportunity to attend. Your support has been key to my continued development, and I'm proud to be part of a company that values learning and growth.

"Sometimes stepping away from the job is exactly what you need to see it more clearly. I came back from Cairns not just with new knowledge, but with renewed motivation, direction, and a real sense of connection to this industry."







"The optimist says: 'The glass is half full.' The pessimist says: 'The glass is half empty.' The engineer says: 'The glass is twice as big as it needs to be'"

Abrasive Blasting Safety in NZ

Industry comment and feedback is sought on a new draft WorkSafe document entitled 'Keeping healthy and safe while performing abrasive blasting in NZ – Guidance for PCBU's'.

This is available to download from www. blastworx.co.nz under the Resources tab.

Please direct correspondence to the author at Paul.Griffin@blastworx.co.nz

Submission of abstracts of technical papers and case studies has closed with 116 abstracts being received on a wide range of corrosion mitigation topics including; asset management (23), cathodic protection (18), coatings (16) and concrete (13). Other topics well represented are sustainability, marine, MIC, CUI, and marine.

Only 12 (out of 76) exhibition booths remain to be filled, indicating that this will be a very successful Conference to be held at the Marvel Stadium between 9-13 November. See you there.





The ACA Applicator and Coatings Technical Groups are excited to hit the road! Their annual Roadshow is heading to Sydney, Perth, Auckland, and Christchurch for an epic tour across Australasia, with roadshows three and four in New Zealand.

Roadshow Three: Monday 21st July 2025, Auckland

Roadshow Four: Thursday 24th July , Christchurch

These events will include a variety of engaging presentations by expert speakers, an exhibition featuring our corporate partners in the coatings industry, and live outdoor demonstrations of the latest equipment designed for coatings professionals.

TICKETS NOW AVAILABLE! For more information and to reserve your place, go to https://www.corrosion.com.au/events/upcoming-events/



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normal depreciation.

Not sure what system suits your job? Just ask. We're happy to help.

And if you're not on the tools yourself, feel free to pass our details to your applicators or project team.

Let's talk at the ACA 2025 Coatings Roadshow

Catch us in Auckland or Christchurch – meet our Technical Reps, check out the latest gear and grab specs or show specials.

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