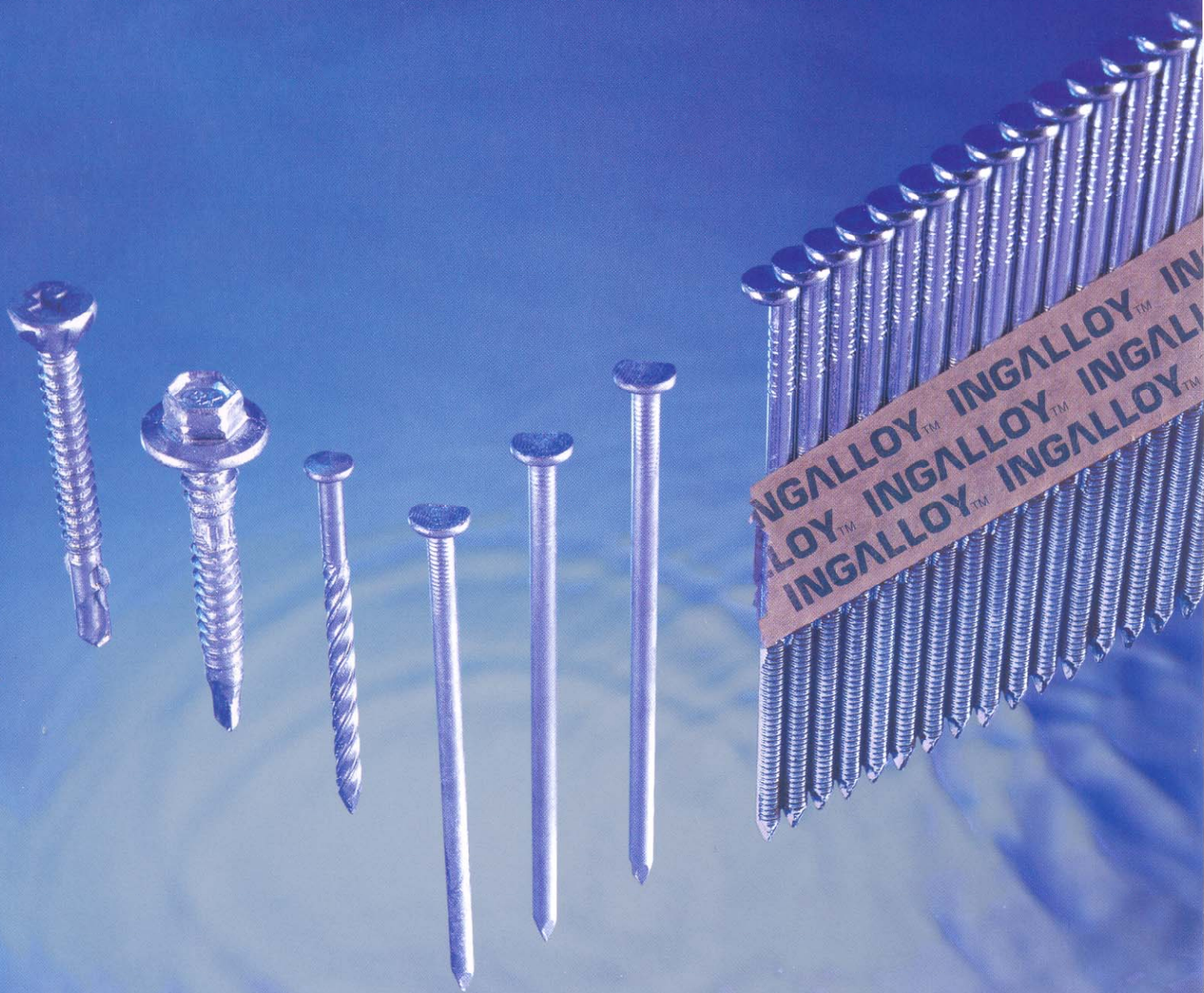


INGALLOY™

BONDED FOR LIFE



INGALLOY™

THE NEW INGALLOY FASTENER COATINGS are hot dipped galvanized to specified thicknesses and all excess metal coating is removed. This new process technology is a world first and has been developed specifically for fasteners.

What makes Ingalloy different?

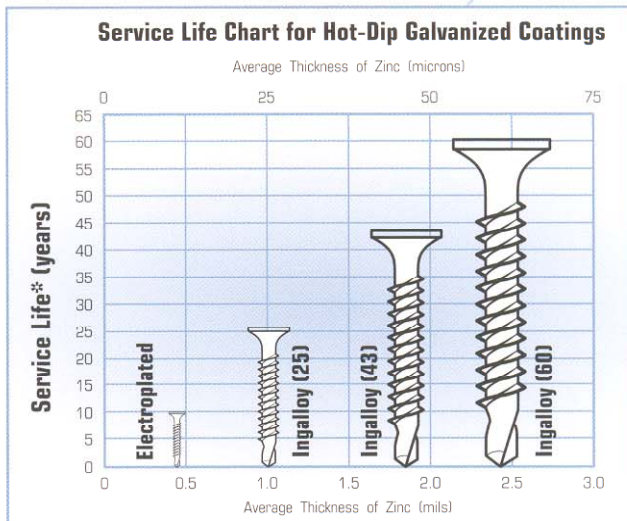
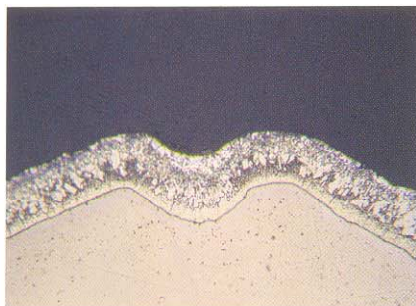
1 SUPERIOR CORROSION RESISTANCE

Ingalloy coatings meet the International Standards for Hot Dip Galvanized coating thicknesses:

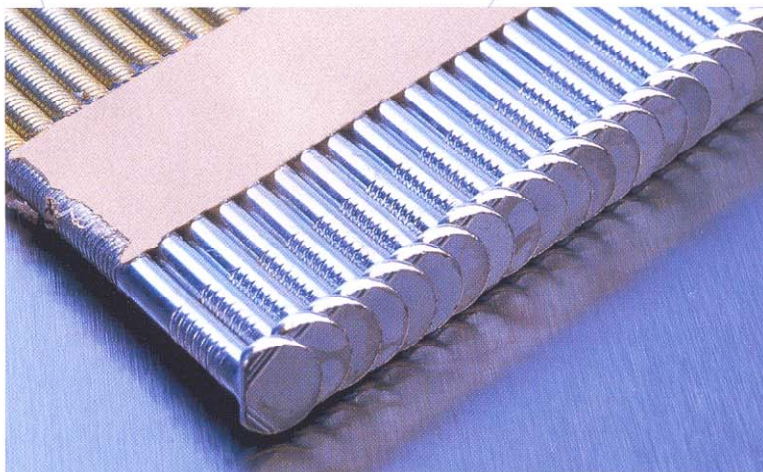
- ASTM 153 Class D
- AS/NZS 4680
- AS/NZS 3566 Class 4
- ISO 1461

2 SMOOTH UNIFORM FINISH

- Ingalloy coatings are applied by an automated PLC controlled process, which reproduces coating uniformity and smoothness on each fastener
- The coating smoothness and uniformity results in high collating machine efficiencies and eliminates rejects and blockages
- Smooth surface allows easy application and adhesion of organic coatings for extra corrosion resistance or aesthetic colours if required



- Derived from The Zinc Coating Life Predictor (Suburban Environment)
- *Service Life is defined as the time to 5% rusting of the steel surface
- Note: 1 oz./ft² ~ 1.8mils



3 ALLOY COATING BONDED TO FASTENER

- The zinc alloy coating is metallurgically bonded to the surface of the fastener
- This prevents mechanical damage of the coating during installation
- The coating provides enhanced abrasion resistance in severe environments





CHEMICAL



resistance

MOISTURE



resistance

ABRASION &
MECHANICAL



resistance

SALINITY



resistance

FASTENER MECHANICAL PROPERTIES UNAFFECTED

- Hardened and tempered self drilling screws unaffected
- No change to surface hardness or core hardness
- Self drilling screw drilling speeds maintained



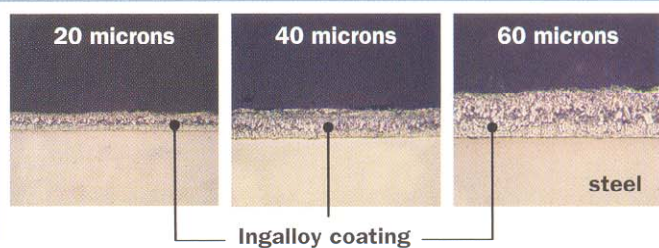
WIDE RANGE OF PRODUCTS CAN BE COATED

- Nails – hand driven and collated
- Screws – 2mm (1/12") to 12mm (1/2") diameter
- Bolts – 3mm (1/8") - 25mm (1") diameter; up to 150mm (6") long
- Nuts, 'U' Bolts etc



SELECT THE COATING THICKNESS REQUIRED FOR THE APPLICATION

- The INGALLOY coating thickness can be specified to meet the environment
- Coating thickness from 20 to 60 micrometres
- Top coats ■ greater than 1000 hours saltspray
- colours for architectural finishes



LOW APPLICATION COST

- Automatic process reduces labour costs
- Controlled zinc alloy thickness
- Efficiency of materials
- Quality assurance
- Product traceability
- Product reproducibility



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THE NEW INGALLOY FASTENER COATINGS are produced by a metallurgical process, by hot dipping the fasteners in a bath containing molten zinc alloys, using a PLC controlled automated machine to ensure that the specified thicknesses are applied and all excess metal coating is removed.

This new process technology is a world first and has been developed specifically for fasteners. INGALLOY is aimed at providing a superior low cost protective coating for nails, both gun nails and hand driven nails, screws for building application and the automotive industry and nuts and bolts for the structural steel and manufacturing industries.

The zinc alloys used in the INGALLOY coating process provide a uniform, controlled coating thickness that ensures a predictable life for the fastener in all environments.

The life of zinc coatings in most environments is well documented internationally and the new INGALLOY process allows a coating thickness to be selected, between 20 micrometers and 60 micrometers, so that the cost of the coating can suit the application, the environment and the life that is required.

The INGALLOY zinc alloy coatings follow the profile of the steel surface, even repairing any minor defects caused in the threading or forming process. The zinc alloy coating is bonded to the surface and forms a hard abrasion resistant subsurface (up to 250 DPN) and a softer outer surface that eliminates mechanical damage to the head or shank of the fastener during installation. This avoids corrosion on the head, in the steel or timber or even in the cavity.

The introduction of new wood preserving chemicals has increased the requirements for more corrosion resistant coatings, to ensure the life of fasteners is equivalent to the life of the structure and the cladding materials. The underbody conditions subjected to motor vehicles also require a coating that has corrosion and abrasion resistance. The new INGALLOY process also ensures that thread clearances are maintained, so that nuts are always going to fit.

The INGALLOY process used the latest technology in PLC controlled automation and materials handling and has closed loop chemical pretreatment and coating processes that are extremely environmentally friendly. The process can be operated as a jobbing plant, in-house as part of the manufacturing line or as a dedicated plant. The coating machinery is modular in design and multiple machines can be employed to meet all production demands.

A wide range of products are able to be coated with the only size limitations being that transfer of product can be achieved through feeders and conveyors. Diverse items such as staples, bolts, self drilling screws, U bolts and many others can be coated with INGALLOY. The low temperature process ensures that the time/temperature effect on the hardness of high strength fasteners such as self drilling building screws are not adversely affected.

The new INGALLOY technology is a low cost, high quality coating process that will provide an opportunity for manufactures to compete with imports with a unique, well proven coating system. ■

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DISCLAIMER Although INGALLOY and Industrial Galvanizers Corporation Pty Ltd consider the information contained in this brochure to be accurate, no warranty as to the accuracy or reliability of the information is given. The information provided has been developed to provide accurate and authoritative information about hot dipped galvanized fasteners. This material provides general information only and is not intended as a substitute for competent professional examination and verification as to suitability and applicability. Subject to any statutory liability that cannot be excluded, no liability is accepted for any loss or damage that may be suffered by any person relying upon such information. Advice should be sought before acting on any of this information.

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