

NAUTILUS®
XTEND™ 4

NAUTILUS®
XTEND™ 5

ICCONS®
Serious Connections®

REAL WORLD | PERFORMANCE

ICCONS Nautilus® XTEND™ is a new and innovative coating that is extremely resistant to corrosion. Nautilus® XTEND™ has bridged the gap between Stainless Steel and Galvanising in the fastener industry and in many cases is a cost effective alternative for some Stainless Steel fasteners. With its patented technology, this unique coating is Hydrogen Embrittlement free, drills faster, lasts longer and adheres strongly to the metal substrate. Nautilus® XTEND™ has been engineered to perform in real world applications and is suitable for use in ISO 9223 categories 3, 4 and 5. Nautilus® XTEND™ is available in two different coating levels:

Nautilus® XTEND™ 4 and Nautilus® XTEND™ 5.



NAUTILUS®

NAUTILUS® XTEND™

**CORROSION
RESISTANCE**

Hard, high density alloy coating which is retained post driving



Due to its unique alloy, **Nautilus® XTEND™** is an exceptionally corrosion resistant coating designed to perform in the real world. ISO 9223 is a globally recognised Standard for testing and evaluating corrosion in a range of different environments. Using the guiding values of ISO 9223, extensive real world and accelerated testing programs have been established to determine the coating's "Service Life".



NAUTILUS®

SIMULTANEOUS CORROSION TESTING



Simultaneous corrosion testing of post-installed concrete fasteners- electro-plated Zinc (left), 55µm mechanically-plated Zinc (middle) and (right) **Nautilus® XTEND™ 5** on a galvanized backing plate during accelerated testing.

UNDER HEAD PROTECTION



Under head corrosion of class 4 fasteners drilled through galvanised steel at a maritime test site.

One of the most susceptible areas for corrosion on a self-drilling fastener is under the head and along the thread and shank area due to coating removal during installation.

Nautilus® XTEND™ consists of a hard, high density alloy which is retained post driving, significantly improving the life expectancy of the fastener, sheeting and steel members.

Some screw suppliers only warrant the head of the screw against loss of structural integrity and don't warrant the shank / thread area which is integral to the screw performance and life expectancy .

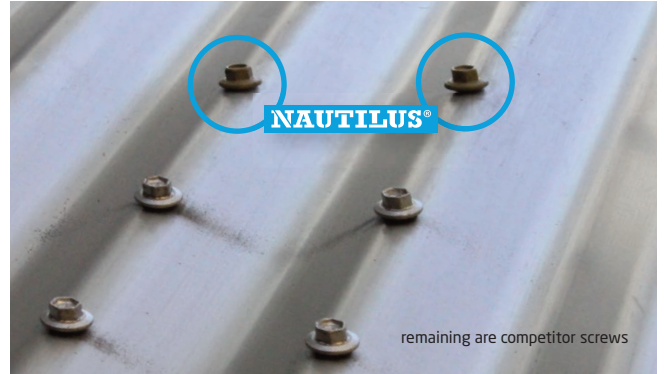
ICCONS® Nautilus® Self-Drilling Screws warranty covers the entire screw against loss of structural integrity, for full details please refer to the ICCONS® Screw Warranty..

ACCELERATED TESTING



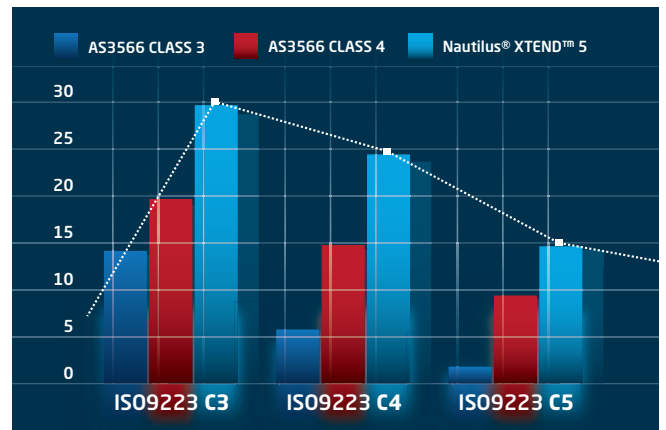
Nautilus® XTEND™ 5 (top row) and Class 4 (bottom row) drilled through galvanised steel during accelerated testing

MINIMAL COATING RESIDUE IN ROOFING APPLICATIONS



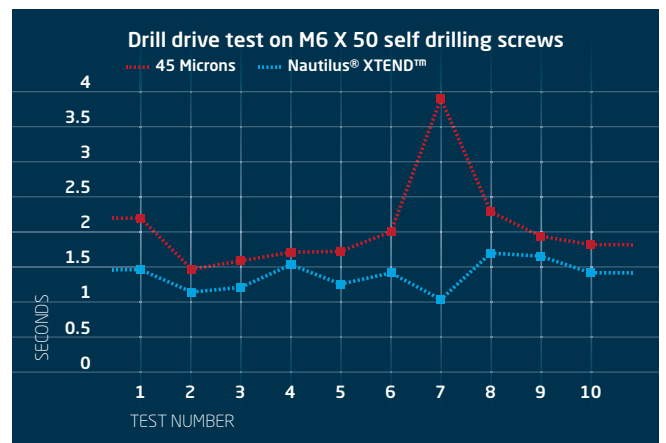
Traditional mechanically plated coatings have always posed the problem of leaving fine zinc deposits on roofing materials after screw installation causing unsightly streaking which is difficult to clean. Nautilus® XTEND™ is a unique hard and durable coating designed to minimise fine coating deposits on roof systems leaving a clean and easy to maintain roof structure.

EXPECTED SERVICE LIFE



Expected service life for AS 3566.2 (2002) / Class 3 and Class 4 fasteners and expected service life (in years) for **Nautilus® XTEND™ 5** in ISO 9233 category 3, 4 and 5 environments.

ENHANCED DRILL SPEED



A Self Drilling fastener's drill performance is significantly enhanced by the Nautilus® XTEND™ process. Compared to traditional Mechanical Plating or Hot Dip Galvanising, Nautilus® XTEND™ offers up to 30% faster drilling speeds. This is due to the coating's lower coefficient of friction and adhesion to the substrate during installation.

ICCONS® SCREW WARRANTY

ICCONS® Nautilus® Self - Drilling Screws

ICCONS® is proud to offer a range of high quality, corrosion resistant Self-Drilling Screws for the Australian marketplace. ICCONS® guarantees the Structural Integrity of its Nautilus® Self-Drilling Screws which includes the head and shank area against the effects of corrosion or other metallurgical manufacturing defects.

ICCONS® references International Standard ISO 9223:2012(E) as guidance for establishing the screw warranty periods and conditions referenced below.

Atmospheric conditions, pollution levels, chemicals, humidity and wetness all have a large impact on the expected serviceable life of the screws. ISO9223:2012(E) provides guidelines to assist in determining the severity of the corrosive environment that the ICCONS® Nautilus® screws will be exposed to.

ICCONS® follows ISO 9223:2012 (E) Categories C2 to CX and will warrant the structural integrity of the screw and washer system for the period indicated in each category. It should be noted the ICCONS® Warranty covers the structural integrity and performance of the entire screw (head and threaded shank area) and does not include the aesthetic appearance of the coating.



WARRANTY

Corrosivity Category - ISO 9223:2012(E) Annex C

	C2 Low	C3 Medium	C4 High	C5 Very High	CX Extreme
Exposure Type	Temperate Low Pollution Short Term Wet	Temperate Mild Pollution Low Industrial	Temperate Mild Pollution Low Marine Mild Industrial	Subtropical High Pollution Mild Marine Severe Industrial	Tropical Climate Extreme Pollution Severe Marine Extreme Industrial
Location Guidance	20km from Ocean	3km from Ocean	1-3km from Ocean	150m from Ocean	Breaking Surf
ICCONS® Screw Recommendation	IC4	IC4	IC4	IC4	Nautilus® XTEND™ 5
Coating	Warranty Period (years)				
Nautilus® XTEND™ 5 (IC5)	40	30	25	15	On Inspection
Nautilus® XTEND™ 4 (IC4)	30	20	15	10	On inspection
Nautilus® 4 (IC4)	30	20	15	10	On Inspection
Nautilus® 3 (IC)	25	15	7	NR	NR
3DG (Nautilus) (FRIULSIDER COATING)	15	7.5	NR	NR	NR

NR = Not Recommended Nautilus® XTEND™ 5 - Available on request.

Australian Standard AS/NZS 2312-2002 states that it is "very difficult if not impossible, to predict accurately the aggressiveness of a given environment and a certain amount of educated judgement is required to assess its Category, an inspection of the local environment, the building type and the condition of similar structures in the area is usually necessary.

Screw selection should always be suitable for both the application intended and be fully compatible for use with the other materials in the build. ICCONS® Nautilus® screws are suitable for use with Bluescope® Zinalume®, ColorBond® and UltraSteel® cladding and roofing profiles.

The table above is meant as a guide only to aid in the selection of appropriate screw material / coating for the application and conditions of the intended use. Always check with recommendations from relevant roll formers for material compatibility, if unsure seek professional advice.

ICCONS® WARRANTY is subject to the following conditions and limitations:

- ICCONS® Screws not exposed to rain are required to be washed down every 6 months.
- ICCONS® screws must be installed correctly by use of a screw gun.
- For applications in coastal regions or where there may be heavy industrial pollutants (chemical plants, airports), ICCONS® screws should be washed down every 3 months.
- Any warranty claim must be supported by full written details of the alleged defect, the date of installation, the application and build detail, location of the installation and proof of purchase.
- All ICCONS® roofing and cladding screws must be head marked IC4.
- ICCONS® Warranty does not apply and ICCONS® will not be made liable for (to the extent permitted by law) any defect or fault arising from the following conditions:
 - Damage caused by exposure to chemical agents, fumes, soils, ashes, fertilisers, liquids and solids other than natural rain fall.
 - Incorrect screw selection for the application or the environment they are used in.
 - Tempest, War or act of God.
 - Incorrect screw selection for the compatibility with other materials used in the build.
 - Over tightened incorrectly installed screws that fail due to stress fatigue.
- ICCONS® will warrant any screws that are deemed to be defective after inspection of the specific project and consideration of the above criteria.
- To the extent permitted by law, ICCONS® will not be liable for any loss or damage caused (including consequential or special loss or damage) whether by negligence or otherwise which may be suffered or incurred by any person or which may arise directly or indirectly in respect of the supply or use of the products or otherwise under or in connection with the warranty.
- Our Goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have any goods repaired or replaced if the goods fail to be acceptable quality and failure does not amount to a major failure.

VICTORIA - HEAD OFFICE
 12-18 Produce Drive,
 Dandenong South,
 Vic, 3175
 P: 03 9706 4344
 F: 03 9768 3329