

Rytons Building Products Ltd.

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Rytons A1[®] Fire-rated Range Metal Corrosion Statement

Product	Composition
Rytons A1 [®] Fire-rated Ducting Kits (Rectangular)	0.9mm galvanised steel
Rytons A1 [®] Fire-rated Ducting Kits (Round)	0.5mm/0.9mm galvanised steel
Rytons A1® Fire-rated Retrofit Round Ducting Kits	0.9mm galvanised steel
Rytons A1® Fire-rated Round FlowRyt® Grilles with Spigots	0.9mm galvanised steel
Rytons A1® Fire-rated Return Grilles 175mm x 175mm with Spigots	0.9mm galvanised steel
Rytons A1® Fire-rated Air Bricks	0.9mm galvanised steel
Rytons A1® Fire-rated AirLiner® Cross-cavity Sleeves	0.9mm galvanised steel
Rytons A1® Fire-rated Periscope® Underfloor Vent with Single Air Brick	0.9mm galvanised steel
Rytons A1® Fire-rated Flyscreened Slim Vent® Major	0.9mm galvanised steel
Rytons A1® Fire-rated Compartment Ducts	0.9mm galvanised steel
Rytons A1 [®] Fire-rated External Weather Louvre	0.9mm galvanised steel
Rytons A1 [®] Fire-rated Plenum Adaptors	0.9mm galvanised steel
Rytons A1® Fire-rated Spiral Ducting	0.5mm galvanised steel
Galvanised steel is a mild steel sheet coated with zinc for long term corrosion protection. It is considered fire class A1 without testing, as per European Commission paper 96/603/EC referred to in BS EN 13501-1:2018.	

RAL colour powder coating (achieving A2-s1, d0) to a thickness of 60-80 microns.

Corrosion – General Introduction

All metals will eventually corrode. Some, like pure iron, corrode quickly. Others, such as stainless steel, corrode slower due to a combination of iron and other alloys.

The rate at which metal will corrode is dependent on many factors. The main factor is the environmental conditions to which it is exposed, and will vary dependent on:

- average and peak humidity
- salt content in the air
- · average and peak temperature
- number of rainfalls per year
- pH of the rain
- atmospheric sulphur dioxide (SO₂)

Self-healing Properties of Galvanised Steel

Zinc corrodes in preference to steel and sacrifices itself to protect the steel, hence hot dip galvanizing will provide this sacrificial protection. The corrosion products from the zinc are deposited on the steel resealing it from the atmosphere and therefore stopping corrosion.

Source: The Galvanizers Association (www.galvanizing.org.uk)

White Rust

White rust can occur on galvanised steel and is caused by moisture trapped between components during storage or transportation. For light occurrences of white rust, no remedial action is required. Over time white rust deposits will slowly convert to a protective layer of zinc carbonate.

Source: SCI Technical Information Sheet ED022

Cut Edges

It is generally not necessary to provide additional protection at cut edges. Corrosion protection to cut edges arises from the sacrificial galvanic action of the zinc adjacent to the edge. There is no practical evidence that higher levels of corrosion occur at edges.

Source: SCI Technical Information Sheet ED022

Galvanised Steel in the Construction Industry

Galvanised steel is tough, making it an ideal material to withstand the rigours of site life. Over the last 150 years galvanised steel has been used in many environments and in numerous industries to build structures such as balconies, bridges, building frames etc.

Rytons A1® Fire-rated Ducting Kits and Air Bricks

Rytons A1® Fire-rated Ducting Kits and co-ordinating air bricks are designed to deliver ductwork with an effective and efficient airflow. The materials are suitable for use when following the Building Regulations Regulation 7(2), Approved Document B, Building (Scotland) Technical Handbook and Building Regulations (Northern Ireland) Technical Booklets.

Maintenance

To help retain the decorative and protective properties of Rytons A1[®] Fire-rated Air Bricks and Grilles, regularly wipe away pollution and airborne debris with a soft, damp cloth - do not use solvent cleaners.

All information given is in good faith and to the best of our knowledge is true and accurate, however, no guarantee regarding its accuracy is given, nor should Rytons representatives or agents imply any such guarantee. Customers should satisfy themselves that the products are suitable for the intended purpose.