



FOCUS ON CAST IRON RAINWATER SYSTEMS

The popularity of cast iron has grown in recent years due to a greater trend towards conservation and sustainability by property managers and designers. Cast iron is used mainly on the more traditional new build properties and extensively in the refurbishment market for domestic properties, churches, industrial and municipal buildings. Clearly, the popularity of cast iron rainwater goods in the United Kingdom is set to continue for many years to come.

Cast iron is a popular choice for its traditional virtues of strength, reliability, versatility and sustainability. Cast iron rainwater goods are often manufactured from a mix of the following recycled materials; scrap iron, scrap steel pressings and scrap steel casting. The resultant cast iron products are themselves 100 per cent recyclable at the end of the product's life cycle.

There are thousands of existing profiles of cast iron gutter displayed on existing buildings and all of these can be replicated today using the traditional fabrication and sand casting techniques. The current manufactured stock ranges include Half Round, Beaded Half Round, Victorian Ogee, Notts OG, G46 Moulded, Deep Half Round and Box.



*The traditional casting process
Image courtesy of Hargreaves Foundry*

These profiles are available in a variety of sizes. Pipes are available in round, square and rectangular sections. They come either ready primed for subsequent painting on site prior to installation or are now widely available pre-painted with several manufacturers offering a range of British Standard colours or RAL options to suit end users, architects, and installers or to meet specific planning requirements.

Pre-painted products now offer the benefit of mechanised coating application for uniform thickness and superior finish quality, as well as allowing for more efficient installation by removing the time needed for manually applied paint to dry to a sufficient thickness. If purchased in a primed finish for on-site painting, it is important to paint each component individually before installation, ensuring that all the non-visible areas are painted and protected and also ensure that the paint is fully dry (not just touch dry) prior to installation, otherwise the silicone sealant may react with the un-cured paint finish.

Powder coated finishes are becoming increasingly popular as they offer excellent hardness and abrasion/impact resistance, and exceptional gloss and colour retention.

The coatings can be formulated for specific applications such as prolonged exposure to sunlight and the ability to survive in highly corrosive environments. All painting should be carried out in accordance with the manufacturer's guidelines.

The sensitive restoration and maintenance of many of the United Kingdom's cherished buildings is vital to the preservation of the country's architectural heritage with cast iron rainwater products being a key feature in many of these old buildings. Ornamental rainwater heads, radius gutters, bespoke pipework and special gutter profiles can all be matched using traditional sand casting methods. An extensive range of designs is available to order from manufacturers who hold tooling for these items and specialist fabrication methods are also available for bespoke requirements. Manufacturers can offer specialist advice on project requirements and their details are on the MGMA web site.



*Cast iron downpipe installed at Guernsey Market, St Peter Port
Image courtesy of Alumasc*

Currently there is much controversy regarding the various plastic 'cast iron look-alike' pipe and gutter systems that have entered the market, purporting to offer the same durability, feel or appearance as the genuine cast iron product at a lower cost. In spite of the latest technology and modern materials there is no plastic replica to cast iron that can remotely provide the durability, feel or appearance of cast iron. At first glance PVC might seem like an economical solution however, whole life cost comparisons prove that is not the case.

PVC does not have the strength, rigidity, durability or colour fastness of metal rainwater systems. The 'cast iron look-alike' effect is created by applying a textured paint or co-extrusion layer to the PVC substrate which will in time fade, if not delaminate, and for that reason generally most of these products are only guaranteed for 10 years.

Cast iron is widely stocked at plumbing and building merchants across the UK, Ireland and Channel Islands and is also available to order online through a number of specialist suppliers. Details of manufacturers can be found via the product matrix on the MGMA web site; this matrix has been designed to help specifiers quickly find a suitable manufacturer for their project and there is also an option to select by product application namely, non-domestic, domestic, heritage, new build and refurbishment.

Cast iron rainwater systems are designed and manufactured to give many years of reliable service and detailed guidance is available on the MGMA web site at www.mgma.co.uk.



*The Grade II listed Roundhouse Building, Derby
Image courtesy of Saint-Gobain PAM UK*

By Tony Wereszczynski, chairman of MGMA and technical director of Marley Alutec. This article first appeared in RCI magazine, December 2012

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