

Five myths about machine cast lead & milled lead

BUSTED

Know your facts from fiction when it comes to lead

There are more myths about cast lead and its use, than about its milled equivalent. Heard the one that machine cast lead is not as pure as milled, or that British Standard lead is better than BBA? When it comes to building with or specifying lead sheet, it's hard to know what to believe. Here, Midland Lead - with nearly 30 years experience in manufacturing over 500,000 tonnes of machine cast lead - would like to set the record straight!

1 Milled lead is better than cast lead

This really is a myth! True, there are two different production processes. Milled lead is manufactured by passing a solid slab of lead back and forth on a rolling mill between closing rollers. Machine cast lead, on the other hand, is produced by dipping a rotating water-cooled drum into a bath of molten lead. The lead sheet is formed on the immersed section of the drum and peels off at the top. It is then wound onto spools, before being cut into lead sheet rolls. Yet for milled lead to be better than cast lead, it has to demonstrate some form of superiority, which it doesn't! Both milled and cast lead are made according to the same analysis, codes, tolerances and permitted sizes. What's more, cast lead is outperforming milled when it comes to strength and creep resistance.

2 Cast lead is not pure lead

It is often claimed that the chemical composition of milled lead is different (better) than that of machine cast lead. Nothing could be further from the truth: both milled and machine cast are manufactured using the exact same chemical specification. At Midland Lead, rigorous quality control procedures are in place to ensure our machine cast lead is made to the highest standard. The lead is quality tested in our on-site lab to ensure the lead is always at least 99.92% pure.

3 Milled lead has a better thickness consistency

The thickness of milled lead is determined by the number of times the solid lead slab is passed back and forth on the rolling mill between closing rollers. The thickness of machine cast lead is determined by the speed of the rotating water-cooled drum and the depth of immersion of that drum into the molten lead bath. Even though the process to arrive at a predetermined thickness of lead sheet varies considerably, the end result is the same: lead sheet with a consistent thickness that will not vary by more than +/- 5% at any given point!

4 Specifiers need the security of British and European Standard lead

The Lead Sheet Association would like you to believe that only milled lead has the correct quality approval (BS EN 12588). According to the LSA machine cast lead, with its BBA quality approval (BBA 86/1764), is of an inferior quality. The fact is, that our machine cast lead can never qualify for this specific British Standard, because it is only applicable to lead that has been manufactured through a milling process. Our machine cast lead is made according to the same BS specification, but instead of being manufactured through a milling process, it's produced through a machine casting process – with the quality assurance of the British Board of Agreement (BBA). And quality assurance by British Standard as well as by the BBA should give specifiers within the UK construction industry similar confidence in the performance of either machine cast or milled lead.

5 Cast lead looks different

Last but not least, it's often claimed that cast lead has a completely different appearance. As for the appearance, yes, machine cast does look slightly different than milled lead. But can you spot the difference* and say whether milled lead or machine cast lead looks more appealing? And, would you be able to spot the difference when the lead is used on a roof? Probably not!

* Midland Lead has organised a 'spot the difference' competition. Go to your local builders' merchant and see if you can spot the difference between milled and Midland Lead cast lead.