IMA Commissions an EU Magnesium Recycling Study to Demonstrate the Sustainability of Magnesium Applications and Avoid Damage to the Metals Growing Reputation

The European Commission has classified magnesium as a Critical Raw Material since 2011. A new assessment confirmed this classification in 2014. A review of the list of Critical Raw Materials is underway and the new list will be published in 2017. The Methodology used to identify a raw material as critical is based on Economic Importance and Supply Risk. The recycling rate, in the 2016-updated methodology, has been taken into account for the evaluation of both parameters (Economic Importance and Supply Risk).

During the same time frame the EU Commission has also launched studies about Substitution and Material System Analysis of Critical Raw Materials (CRM). Substitution in particular, eventually leads to a decreased use of magnesium and also to channel research funds away from magnesium applications. Sustainability and the Circular Economy are two main objectives of the EU with the goals of increasing recoveries and minimizing wastes. Some magnesium customers in Europe (e.g. automotive OEMs) are already asking for information about recycling rates.

Why a Magnesium Recycling Study

The Material System Analysis (MSA) of CRM’s commissioned by the EU was carried out by “bio by Deloitte”. The Magnesium MSA was further subcontracted and performed by Charles University in Prague.

The final report was published on 19th November 2015 and is available on Internet at the following address:


Regarding magnesium, the main conclusions can be summarized by the Sankey diagram here below
This diagram shows that in 2012, for 168kt of Magnesium imported in the EU, 114kt are lost to landfill. Even though the IMA in Europe has strongly contested this result the final report has been published with these numbers. In regard to the EU Policy context (CRM, Sustainability, Circular Economy), the Magnesium Industry cannot stand by and fail to take action against the publication of such nonsense.

The IMA in Europe believes that a further study needs to be performed by a consultant with relevant competence in the field to prove “with numbers” the inaccuracy of “bio by Deloitte” study. One important mistake in the Charles University MSA study is that the magnesium recycled through aluminium alloys has not been taken in account as functional recycling.

The IMA European Committee is convinced of the increasing importance of recycling and is very concerned by the result of the MSA study launched by the EU in 2015. It believes that a Magnesium Recycling Study on the same basis of the MSA (EU 28, Year 2012) and its wide distribution are necessary in order to demonstrate the sustainability of magnesium applications and avoid damage to the metals growing reputation as a lightweighting solution of choice.

Based on this conviction and a recommendation of IMA’s European Committee, IMA has commissioned a recycling study of Magnesium in the EU. The study will be conducted by Oakdene Hollins, of Aylesbury England, and will hopefully be available for IMA’s upcoming World Magnesium Conference to be held in Singapore 21-23 May 2017. The study is being partially funded by a number of European Committee member companies as well as companies in the U.S.

IMA is looking forward to the results of study and is eager to share them with the membership.