Plastics from WEEE

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Abstract

Plastics recycling from WEEE is a currently relevant, yet most unusual topic: the merit of plastics recycling is strongly subordinated to the recovery and value of the precious metals present and the value of the eventually recoverable plastics should be weighed against the environmental risks related to its hazardous aspects. These derive from the presence of Brominated Fire Retardants (BFR) and heavy metals present (antimony fire retardants, lead and tin solders, etc.). The literature on mechanical, thermal and feedstock recycling of WEEE is critically analysed, mainly from the viewpoint of environmental and occupational hazards some developing countries are confronted with when tolerating low-tech WEEE treatment.

Keywords: plastics recycling ; WEEE; Brominated Fire Retardants ; heavy metals ; treatment technologies