



“Gheorghe Asachi” Technical University of Iasi, Romania



RESEARCH ON SUSTAINABLE USE OF POWDERY WASTE

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Abstract

In the context of sustainable development, focus must be set on reasonable use of natural and energetic resources, which is a real must at present. Besides these, material and informational resources add up to give the full picture of sustainable development resources. The paper introduces a valid solution of powdery waste recycling into pellets for the steelmaking industry. The pellets are obtained from powdery wastes (steel plant dust, red sludge, lime dust, dolomite waste, waste limestone, blast furnace slag and sideritic waste) in various proportions and with addition of bonding. The experimental pellets obtained according to the suggested recipes have been used as additives to the electric arc furnace. Besides the resulting technological effects, consisting in the creation of an active oxidizing slag, economical and ecological benefits are also to be considered.

Key words: environment, pellets, siderurgy, slag, waste

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