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| 1. | Authors: | Abdullah Al Shafe, A. H. M. Azadur Rahman | |
| | Paper Title: | Development of Small Scale Low Cost Insulating Riser Sleeves from Scraps and by Products of an Existing Foundry Industry | |
| | <p>Abstract: Riser sleeves are used to avoid defective casting caused by the shrinking of the molten metal due to solidifying after being cast in a mold. Riser sleeve whether insulating or exothermic or both are manufactured over the world by using different kinds of materials. But the costing associated with the riser sleeves is high and it increases the overall casting cost of a particular foundry industry. There are lots of scarp materials and by-products in an existing foundry industry that can be used as the constituent of riser sleeves. The overall costing of the sleeves will be very low if it is possible to use these scraps and by products to produce low scale sleeves. This paper deals with the process and parameters of manufacturing very low cost insulating riser sleeves by utilizing the scraps and by-products of an existing foundry industry.</p> <p>Keywords: Foundry, riser sleeve, insulation, binder, slurry, Sodium Silicate.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Hardin, R.A., Williams, T.J., and Beckermann, C., "Riser Sleeve Properties for Steel Castings and the Effect of Sleeve Type on Casting Yield," in Proceedings of the 67th SFSA Technical and Operating Conference, Paper No. 5.2, Steel Founders' Society of America, Chicago, IL, 2013. 2. Atsumi Ohno, Sekisui Suponji Kogyo Kk, "Method of manufacturing porous riser insulating sleeve", US Patent no: 3470276, Sep 30, 1969. 3. Fischer S.A., Horvath L.R., Showman R.E., Skerd U., "The Evolution of High Performance Feeding Aids to Improve Casting Quality", Technical Article, ASK Chemicals L.P., Dublin, Ohio, USA, 2012 4. Dash. B, Das B.R., Tripathy B.C., "Acid dissolution of alumina from waste aluminium dross", Hydrometallurgy, Volume 92, Issues 1-2, Pages 48-53, May 2008. 5. Habeeb G.A., Mahmud H.B., "Study on properties of rice husk ash and its use as cement replacement material" Materials Research, Vol.13 no.2 São Carlos Apr./June 2010. 6. Singh D., Kumar R., Kumar A., Rai k.N., "Synthesis and characterization of rice husk silica, silica-carbon composite and H-3 PO4 activated silica", Ceramica 54, page 203-212, 2008. | | 1-3 |