

## SILICON INDIA

### Details of Application, dosage and benefits

#### Rice Husk Ash Pellets.

Application: - This is an effective TUNDISH cover for insulation on slag free molten steel in continuous casting. It is an effective medium to retain that minimum superheat necessary for a smooth casting operation by preventing radiant heat loss from the surface of the molten steel.

Requirement: The consumption of RHA Pellets is 400 – 500 gms for the production of 1 MT steel in a slag free environment.

Product features of RHA Nodules:-

- Nodular Shape
- Low Bulk Density after application
- Excellent Spreadability
- Effective Insulation
- Non Reactive to Refractory

Advantages in Use:-

- NO POLLUTION during charging on Tundish deskulling. (No fume / no dust as the material is practically free from dust and the material remains in globular shape at ladle top temp.)
- Minimize storage space, as bulk density is high.
- No reaction with Ladle or Tundish Refractory, therefore NO SKULLING. (cleaner and better steel)
- High Insulating Properties (highly endothermic in nature thereby reduction of temperature in the Turn dish will be at a much slower rate.) - BEST PROTECTION AGAINST HEAT LOSS.
- EXCELLENT FLOWABILITY to facilitate completely uniform natural insulation.
- EASY APPLICATION - mechanized feeding is possible
- After application, the RHA Nodules lose the volatiles within seconds and get converted to fully sintered nodules of lower BD producing an effective and unbreakable protection against heat loss & reoxidation.
- RHA Nodules have the feature to avoid the crust formation. Due to their regular & globular shape they float over the turbulent surface of liquid metal without any fusion/sintering between the nodules. The insulation covering remain absolutely flexible, thereby not allowing crust formation and providing perfect insulation.

Product Economics:-

- A direct consumption of RHA Pellets is reasonably in a lower quantity than the other conventional means of insulating cover by virtue of its round shape, high heat insulating value & increased spread ability.
- Because of comparatively higher density than that of RHA Flakes, transportation & storage costs are reduced considerably.
- Since there is no skull formation in Tundish , it can be dumped easily & cleanly & thereby refractory wear& tear are minimized, thus saving in Turndish Refractory lining & its life.

N.B.:-

- After charging RHA Flakes to Tundish the colour changes from blackish to a dull white colour, as the carbon in it is oxidised. But the RHA Nodules in turn change from blackish to dull red hot nodules as the amorphous silica is sintered. This should not be misinterpreted as lack of insulation.
- The ladle has to be free from slag.