GOYAL TECHNOCHEM PVT. LTD.





CASE STUDIES OF PIHBOND INDUCTION IN KOYO HP LINE PRODUCING SANITARY AND AUTOMOBILE CASTING

By Goyal Technical Team

AGENDA

- The Goyal Group, trying to ensure better castings for the foundries, have now after considerable R&D effort, developed Single Additive product *PihBond series* for foundry's green sand system and now associated with a Foundries with KOYO HP line producing Automobile and Sanitary castings.
- Goyal Group introduced Single Additive—*PIHBOND series* in the sand system with the following objectives:
 - ✓ Improve the peel off and finish of castings.
 - ✓ Optimizing Shot blasting time.
 - ✓ Optimize the addition of various consumables.
 - ✓ Control Weight of Castings.
 - ✓ Reduction in Sand related Rejections.

SAND STICKING





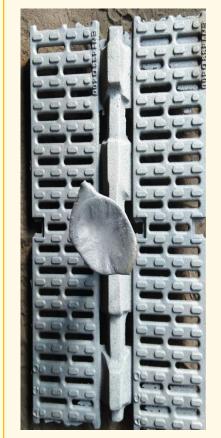


PRE-TRIAL

POST-TRIAL

SHOT BLASTING







PRE-TRIAL

POST-TRIAL

SHOT BLASTING







PRE-TRIAL

POST-TRIAL

TECHNICAL IMPROVEMENT - FOR 400MT PRODUCTION FOUNDRY

 Reduction in Addition of Additives 	65%
• Increase in GCS	18%
 Reduction in Sand Sticking 	42%
 Reduction in Shot Blasting Time 	38%
 Avg. Reduction in Casting Weight 	4.72%
 Reduction in Sand Related Rejection 	28%

CONCLUSION

- The Foundry accrued Technical Advantages as stated in our proposal.
- WIP in the fettling was reduced considerably
- This enabled faster dispatch of castings
- Mould breakage reduction, enabled better production
- Shop floor pollution reduced considerably enabling better working conditions in the Foundry
- While the cost of PihBond enriched sand works out higher than Bentonite + LCA enriched sand, when considering the overall costing (cost advantage accrued by the tangible Technical Advantages) the Foundry was advantaged commercially in comparison to the Bentonite + LCA System.