

Title of Technology to be offered	Utilization of iron ore slimes
Type of Technology	Process development through Indigenous R&D
Area of Technology	Mineral (Iron Ore) Processing / Ferrous Processes (Iron Making)
Details of Collaborating Agency	Steel Authority of India Limited, New Delhi Mecon Limited , Ranchi
Uses	In the Production of Sinter / Pellets from the Concentrates of Iron Ore ( slimes)
Salient Features	<p>The concentrate generated from the beneficiation of slimes and lean grade ores need to be suitably agglomerated in the form of sinter or pellets for iron making through DR and / or BF route(s). Sinter-making using the concentrate from these resources is not a viable solution in view of its unfavourable granulometry.</p> <p>A suitable pelletisation process has been developed which addresses the problem of higher requirement of binder. Besides, the process aims to generate quality pellets in terms of RDI/ RI and swelling index.</p>
Scale of Development	Laboratory Scale , Pilot Scale (under execution)
Major Raw Materials	Iron Ore Fines, Fluxes (Limestone, Dolomite or Other Mg bearing minerals), Coke Breeze, Lime and Metallurgical Wastes
Major Plant Equipment/Machinery	Preparation and Mixing Circuits of major raw materials , Disc/ Drum pelletiser, Heat hardening units.
Details of specification application	IS 9963:1981 and IS 6495:1984, respectively, for the shatter and tumbler tests of pellets.RDI and RI tests follows standard measuring practice in Tata Steel or elsewhere.
Status of Development	The technology , though successfully implemented in typical plant, is material specific , hence the process need to be studied in our Laboratory in relation to the concentrates from the slimes and lean grade iron ore(s).
Ecological/Environmental Impact (if any, specify briefly)	The process is environment friendly.
Patenting details	Not filed
Commercialisation Status	The technology is material specific .
Techno-Economics	-----
Key words	Iron ore, Pellets , Cold (Tumbler) strength, RDI and RI