Production of Footwear Insole Materials from Leather Shaving Dust.

Process	Production of Footwear Insole Materials from Leather Shaving Dust.	
Area	Footwear Industry.	
Uses	Used as an Insole in Footwear making.	
Salient Features	It is made of Leather shaving dust- a tannery waste, suitable for the use of manufacturing of insole and other internal parts of shoe. It is soft, flexible, durable and porous.	
Scale of Development	The process is Standardized at Bench Scale.	
Major Raw Materials	Leather Shaving Dust, Latex, PVA, Reinforcement, Querbracho etc.	
Major Plant Equipment / Machinery	Reaction vat, Suction Pump, Plate, Pressing Machine, etc.	
Details of Specific Application	The Board is mainly used in footwear industry.	
Status of Development	The board has been developed. It is ready for Commercialization.	
Ecological / Environmental Impact (if any)	The manufacturing process involves tanning and other chemical processes, so it needs Effluent Treatment Plant (ETP).	
Patenting Details	Patent Accepted	
Commercialization Status	Ready for Commercialization.	
Key Words	Shaving dust, Latex, Tanning, Querbracho etc.	

Product Developed By

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Design and Development of Diabetic Footwear for Diabetic Patients

Process	A Process for Design and Development of Diabetic Footwear for Diabetic Patients	
Area	Footwear Industry.	
Uses	Persons suffering from diabetes or diabetes related foot problem, who have neuropathy (loss of sensation), minor foot deformation and have developed minor foot complications earlier	
Salient Features	• PU and EVA sole with extra depth for more effective pressure distribution • The extra depth sole with special tread for better grip and traction • Specially designed insole bed and foam layer for added comfort • Rigid counter to ensure limited joint mobility • Specially designed upper with leather lining for comfortable wear • Leather tanned with organic tanning material for enhanced perspiration absorption and better breathability property	
Scale of Development	The process is standardized at bench scale	
Major Raw Materials	Soft upper leather, PU insole	
Major Plant Equipment/Machinery	Foot scanner, Clicking m/c, Sewing m/c, Sole press m/c, Skiving m/c	
Details of Specific Application	The process is applicable for the manufacturing of Diabetic Footwear in industrial scale	
Status of Development	The process has been developed and is under review for verification	
Ecological/Environmental Impact	No harmful product is used in the manufacturing process and no harmful product will generate from the manufacturing process	
Patent Details	Patent Filed	
Commercialization Status	Not yet ready for commercialization	
Techno-Economics	Available on demand	
Key Words	Diabetic shoes, Orthotics	

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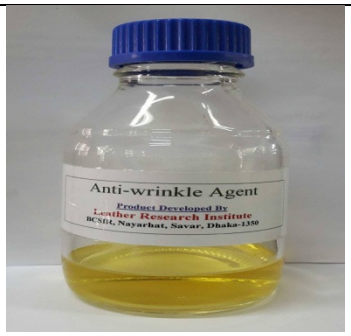
Process for manufacturing of anti-wrinkle agent used in leather industry

Process	A Process for manufacturing of anti-wrinkle agent	
Area	Leather Industry.	
Uses	The product is used for manufacturing of anti-wrinkle agent in liming operation of leather manufacturing process	
Salient Features	Anti-wrinkle agent eliminates possibility of developing wrinkles during leather manufacturing process thus offers better quality leather with enhanced cutting value	
Scale of Development	The process is standardized at bench scale	
Major Raw Materials	Ethyl amine, Sulphuric acid	
Major Plant Equipment/Machinery	Reaction Vessel (500 ltr.), Water softening m/c, Pumps	
Details of Specific Application	The process is applied for the manufacturing ofanti-wrinkle agent in industrial scale	
Status of Development	The process has been developed and is ready for commercialization	
Ecological/Environmental Impact	No harmful product is used in the manufacturing process and no harmful product will generate from the process too.	
Patent Details	Patent right not obtained	
Commercialization Status	Ready for commercialization	
Techno-Economics	Available on demand	
Key Words	Leather wrinkle, Leather process, liming operation	

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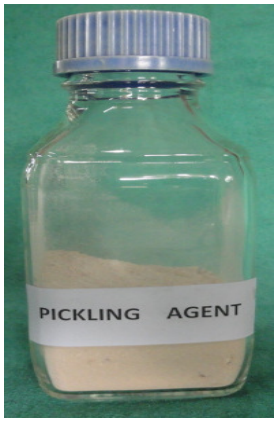
Process for Manufacturing of Pickling Agent used in leather industry

Process	A Process for manufacturing of pickling agent	
Area	Leather Industry.	
Uses	The product is used for manufacturing of pickling agent in pickling operation of leather manufacturing process	
Salient Features	• Pickling agent is a unique product which eliminates the use of common salt and sulphuric acid in pickling operation of leather manufacturing; • TDS in the discharged liquor of pickling and tanning operation of leather manufacturing process is largely reduced	
Scale of Development	The process is standardized at bench scale	
Major Raw Materials	Naphthalene, Sulphuric acid	
Major Plant Equipment/Machinery	Reaction Vessel (500 ltr.), Water softening m/c, Pumps	
Details of Specific Application	The process is applied for the manufacturing ofpickling agent in industrial scale	
Status of Development	The process has been developed and is ready for commercialization	
Ecological/Environmental Impact	No harmful product is used in the manufacturing process and no harmful product will generate from the process too	
Patent Details	Patent right not obtained	
Commercialization Status	Ready for commercialization	
Techno-Economics	Available on demand	
Key Words	Pickling, Leather process	

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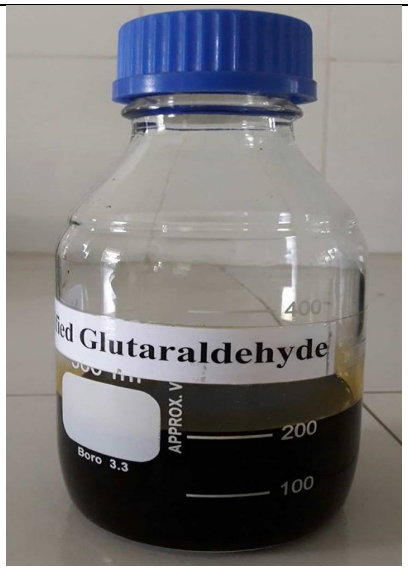
Preparation of Tanning agent from Glutaraldehyde and its use in Leather Processing

Process	Preparation of Tanning Agent from Glutaraldehyde and its use in Leather Processing.
Area	Leather Industry.
Uses	The skin is used as a tanning material to protect from putrefaction.
Salient Features	Glutaraldehyde is used for making Chrome free Leather.
Scale of Development	The process is standardized at bench scale.
Major Raw Materials	Glucose-monohydrate, Glutaraldehyde (50%).
Major Plant Equipment/Machinery	Reaction Vessel (500 ltr.), Water softening m/c, Pumps
Details of Specific Application	The process is applied for the manufacturing of Tanning agent from Glutaraldehyde in industrial scale.
Status of Development	The process has been developed and is ready for commercialization
Ecological/Environmental Impact	No harmful product is used in the manufacturing process and no harmful product will generate from the process too.
Commercialization Status	Ready for commercialization
Project Implementation (estimated) Amount of money	2,30,00,000 / = (100 m tons / year)
Space for Implementation of the project (approximate)	1700 sft
Payback period	2.23 years.



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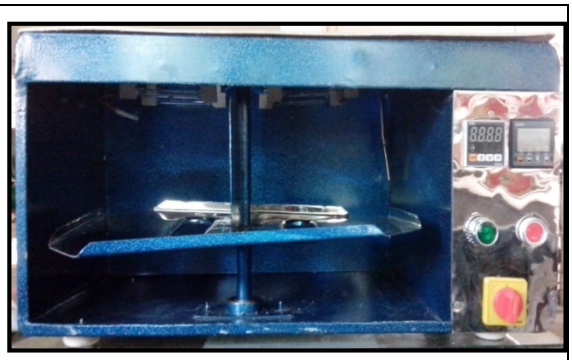
Design and Innovation of Hit Reactivation for Footwear Industry.

Process	Design and enhance the various mechanical and electrical parts.	
Area	Footwear Industries	
Description of raw materials	BP Sheet, Temperature Controller, Relay Contact, Lamp, Switch, Cable etc.	
specialty	Economical, easy to use, easy to manufacture and maintain.	
Estimated cost to implement the project	3-5 lakhs Taka	
Estimated space to implement the project	600-800 sq ft	
Main equipment	Sheet Bending Machine, Welding Machine, Drill Machine, Grinding Machine	
Number of Total Workers (Estimated)	2-3 person	
Payback period	1.5-2.0 years	
Fixed time of invented goods	5.0 years	
Cost per unit	16000 Taka	

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