

# Leather Research Institute

Leather Research Institute (LRI) commenced its functioning as a full-fledged mono-disciplined research institute from 2000 with modern facilities to strengthen research and development activities in the field of leather science & technology. Prior to its establishment, the institute had been functioning as a division of Dhaka Laboratories of BCSIR since 1956 with limited facilities.



The R&D functions of the institute have been grouped into six programs like leather processing, tanning material research, chemical research, Animal by-product research, leather products & pilot plant and being executed through the respective divisions. At present the institute has staff strength of thirty two including nine scientists.

Leather Research Institute undertakes a wide range of chemical analysis and physical testing services on leather, chemical, footwear and its components. Some of the tests are listed below:

## *Chemical Analysis*

- \* Analysis of water
- \* Analysis of lime
- \* Analysis of sodium sulphide
- \* Analysis of deliming agent
- \* Analysis of vegetable & synthetic tanning materials
- \* Analysis of dyes
- \* Analysis of fatliquors
- \* Determination of chromic oxide ( $\text{Cr}_2\text{O}_3$ ) of chrome powder
- \* Determination of basicity of chrome (BCS) powder
- \* Determination of hide substance in leather.
- \* Determination of BOD
- \* Determination of COD
- \* Determination of total solid (TS)
- \* Determination of dissolved solid (DS)
- \* Determination of suspended solid (SS)
- \* Determination of chloride/ sulphate/ nitrate/ ammonia from effluent.

## *Physical Tests*

- \* Abrasion resistance of sole leather
- \* Apparent density of sole leather
- \* Adhesion of finish
- \* Break/pipelessness of leather
- \* Colour fastness of leather
- \* Heel impact resistant
- \* Heel fatigue resistance
- \* Rub fastness - circular
- \* State of cure test for soling materials
- \* Shrinkage temperature of leather
- \* Water penetration
- \* Water vapour permeability
- \* Wrinkle assessment of leather.
- \* Longitudinal stiffness of insole back part
- \* Creep strength of adhesives
- \* Flexing resistance- Bally
- \* Flexing strength of whole shoe
- \* Grain strength test of leather
- \* Tensile strength / Extension