

CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE

NARODA CENTRE

Product Testing & certification

CGCRI, Naroda Centre is an ISO 9001:2000 certified test laboratory and it is well equipped to meet and exceed the customer's need and expectation in a timely manner. At CGCRI, Naroda Centre, various tests from chemical analysis to physical and mechanical testing for different ceramic materials like plastic/non plastic raw materials and finished products e.g.; tiles, white ware, insulators, refractories etc. can be carried out

Testing facilities of CGCRI Naroda centre are also approved by INTERTEK government services division (global company in inspection, testing and certification for exports to various countries)

A. Raw Material Testing

- Complete analysis of China Clay as per IS 2840:2002.
- Complete analysis of Ball Clay IS 4589:
- Complete analysis of non plastic raw materials as per IS standards.

B. Ceramic Tile Testing (As per IS 15622/ISO 10545)

- | | |
|---|---|
| 1) Dimensional analysis | 7) Coefficient of linear thermal expansion. |
| 2) Water absorption | 8) Thermal shock resistance |
| 3) MOR & Breaking strength | 9) Craze resistance |
| 4) Surface Abrasion resistance of glazed tiles. | 10) Chemical resistance |
| 5) Depth Abrasion resistance of unglazed tiles. | 11) Stain resistance. |
| 6) Scratch hardness as per Moh's scale | |

C. Sanitaryware testing (As per IS 2556 & SASO 1024)

- | | |
|---------------------|--|
| 1) Water Absorption | 4) Abrasion resistance |
| 2) MOR | 5) Chemical resistance |
| 3) Craze | 6) Resistance to staining and burning. |

D. **Chemical analysis** of all the ceramic raw materials & finished products by classical method.

E. Testing of Refractories and allied materials

- | | |
|---|---|
| I. Apparent porosity | VII. Chemical analysis i.e. Al_2O_3 , Fe_2O_3 , TiO_2 , |
| II. Bulk Density | SiO_2 , CaO , MgO , Na_2O , K_2O & LOI |
| III. Cold crushing strength (CCS) | VIII. Water absorption |
| IV. Pyrometric Cone Equivalent (PCE) | IX. Flexural Strength |
| V. Refractoriness under load (RUL) | X. Chemical resistance |
| VI. Permanent Linear change (PLC) up to
1300°C/ 2-5 hrs. | XI. Hot Modulus of Rupture (HOT MOR) |

Customer's Benefit

- ✓ Accurate, reliable & time bound service.
- ✓ Confidentiality of the test results is strictly maintained.
- ✓ Test Certificates are well recognized by various government authorities and non government bodies.

