



# CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE

## NARODA CENTRE

168 & 169, NARODA INDUSTRIAL ESTATE, AHMEDABAD-382 330 (GUJARAT) INDIA

### QUALITY CERTIFICATE

*This is to certify that*

M/s. JAY REFRACTORIES

CHOTILA ROAD, THANGADH - 363 530

*had registered with this Institute for technological upgradaton under a special scheme for a period of one year. The referred unit during that period implemented the technical guidelines & recommendations provided from CGCRI, Naroda Centre and had also minimized rejections significantly at the different stages of production.*

*It is also certified that the product namely, VITREOUS SANITARY APPLIANCES, manufactured by the unit had achieved the quality standard according to the requirements of IS 2556 (PART-1):1994, VITREOUS SANITARY APPLIANCES (VITREOUS CHINA) - SPECIFICATION.*

Date : 27th JULY, 2006

*K. N. Maiti*  
(K. N. Maiti) 27/7/06  
Scientist-in-Charge

**Central Glass & Ceramic Research Institute**

(COUNCIL OF SCIENTIFIC &amp; INDUSTRIAL RESEARCH)

NARODA CENTRE, NARODA INDUSTRIAL ESTATE,  
AHMEDABAD-382 330 (INDIA)

(Headquarters : Central Glass &amp; Ceramic Research Institute, Jadavpur, Kolkata-700 032)

**TEST CERTIFICATE**

Sample Registration No. 20062407-233

dt. 24/7/06

Sr. No. : GC/NC/7958/

1485

Issued to M/s Jay Refractories  
Chotila Road, Thangadh-363 530.

Ref. No. : GC/NC/TST(Misc)/2006/767

Date : 27th July, 2006

Customer Ref. No. -

dt. 20/7/06

SAMPLE DESCRIPTION & NAME : Broken samples of sanitarywares & fired MOR bars  
submitted by the party.TEST DESIRED : 1. Water absorption (%)  
2. Modulus of Rupture (MOR) Kg.cm<sup>-2</sup>  
3. Crazeing resistance  
as per IS 2556 : 1994RESULTSTest DataTest Requirement

## 1. Water absorption (%)

5 test pieces each having a surface area of approx. 100cm<sup>2</sup> and atleast one major surface being a glazed surface along with surfaces other than major surface being freshly broken unglazed surface and all the specimens free from cracks in body or glaze subjected to W.A. test.

1)	0.28
2)	0.18
3)	0.10
4)	0.26
5)	0.23
<b>Ave.</b>	<b>0.21</b>

Test requirement as per  
IS : 2556, Part I (1994)Average W.A. %  $\leq$  0.50%  
Individual W.A.  $\leq$  0.75%

Passed the test

2. Modulus of Rupture (MOR) Kg.cm<sup>-2</sup>Unglazed fired bars of sanitaryware body having cross section area of atleast 150mm<sup>2</sup> and 150mm long were tested for MOR.

1)	832.1
2)	876.4
3)	751.3
4)	878.9
5)	823.4
6)	853.0
7)	739.2
8)	813.8
9)	858.6
10)	893.0
<b>Ave.</b>	<b>832.0</b>

Test requirement as per IS 2556 :  
1994.Average modulus of rupture should not  
be less than 60 MPa (612 kg.cm<sup>-2</sup>)

Passed the test



## TEST CERTIFICATE

Continuation Sheet.....

**CGCRI Naroda Centre**

GC/NC/7985/1485

**Ahmedabad 382 330**

Dt.: 27/7/06

1767

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### Test Data

### Test Requirement

#### 3. Crazeing resistance

5 test piece each having a surface area of about  $250\text{cm}^2$  of a sanitary-ware applicance were subjected to autoclaving at a saturated steam pressure between 0.33 MPa to 0.37 MPa for two periods of 5 h each.

None of the specimens showed any sign of crazeing on the glazed surface.

Passed the test

(Dr. K.N. Maiti)

Scientist-in-Charge

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