TR 10-140-141

R. 491

WYNYARD BRICK COMPANY

Sample

Specimens submitted for testing were as follow.

A. Bricks pressed at Machen's Works, Launceston, by stiff plastic pressing.

B. Tile extruded at Wunderlich's Works, Launceston.

These specimens were stated to have been manufactured from clay obtained from Diprose's property, Oldina Road, Wynyard.

The object of the investigation was to indicate whether commercially usable bricks can be made from this material at the firing temperature obtained in an updraught kiln probably between 800°C and 900°C.

Testing

1. Small test pieces were cut from both the bricks and tile submitted and tested for moisture content, firing losses and drying and firing contractions. Firings were conducted over a range of temperatures from 800°C to 950°C.

2. Test briquettes were manufactured in the laboratory by de-aired extrusion from a portion of the tile submitted.

These pieces were tested as described in paragraph 1.

3. Several of the commercial size pressed bricks were fired at 850°C, and examined for commercial utilization with respect to soundness and appearance.

4. Fusibility determinations were made on a sample of the material from the pressed bricks.

Test Results

Specimen	Per Cent Moisture in Green Brick	Firing Loss 850°C	Per Cent Contractions Drying 110°C	Firing (Additional) 800°	850°	900°	950°
1. Bricks from Stiff-Plastic Press at Machen's	16	5½	1	Nil	Nil	Nil	Nil
2. Bricks from extruded tile ex Wunderlich	20	5½	5	Nil	Nil	Nil	Nil
3. Lab. Test bricks by de-aired extrusion	20	5½	5	Nil	Nil	Nil	Nil

Fusibility Test Softening Point: 1,350°C

Increase in temperature to 1370°C produced near total fusion with bloating of the specimens.

Colour of Bricks

All fired bricks were orange in colour. No significant colour variation takes place with different firing temperatures in the range tested.

Summary

1. The quality of the fired bricks is consistent over the whole range of firing temperatures investigated.

2. The fired products are of good appearance. They are rather soft and are underfired at all temperatures tested.

3. Bricks fired at 850°C, although judged to be underfired, did not spall during immersion in boiling water for one hour.