GOUDA *refractories*

an ANDUS *group* company

Photograph courtesy of Emirates Global Aluminium

Potlines / Reduction Cells

Aluminium Industry
Gouda Refractories delivers complete refractory solutions for anode baking furnaces, pot lines, transfer ladles, melting furnaces and holding furnaces used in the production of aluminium and aluminium alloys.

The AR 26 (DT) is a high quality barrier brick for electrolysis cells with excellent cryolite resistance. Dense refractory brick AR 26 (DT) is a dense fireclay brick for use up to 1.100 °C. AR 26 (DT) is characterized by a good resistance to liquid aluminium, cryolite and acid slags.

Gouda Refractories' AR 26 (DT) has been developed for use in aluminium electrolysis cells (pot lines), industrial furnaces and chimneys. The latest developments in electrolysis cells (e.g. higher amperages) result in a demand for higher quality barrier bricks.

LLOYD'S REGISTER · LRQA
ISO 9001

Cryolite Test

Acc. ISO 20292:2009:

- Cup Test 24hr @ 950 °C.
- Mixture: 60% Cryolite + 40% NaF.
- Area of disappeared refractory is measured.

Technical Background

Based on our knowledge of the production of dense refractory bricks, our fully automated production line and by our access to high quality raw materials, Gouda could develop the AR 26 (DT) brick:
AR 26 DT : Based on and complying fully to the Dubal Technology
AR 26 : General purpose barrier brick

The AR 26 (DT) has been tested independently by SINTEF (*Norway*).

The excellent properties of our AR 26 (DT) bricks results in an increased refractory life by offering:

- Very good resistance to liquid aluminium, cryolite and acid slags.
- Large brick dimensions (up to 500 x 500 mm possible).
- Strict dimensional tolerances (incl. flatness).
- Reduced edge defects.
- Reduced number of cracks.

Gouda Refractories has also developed the adequate refractory mortars for AR 26 (DT) bricks:
Adhesiet AR : General purpose air setting mortar
Adhesiet N AR : Ready to use air setting mortar

Materials			
		AR 26 DT	AR 26
Material Properties			
Maximum Service Temperature	°C	1.100	1.100
Bulk Density	kg/m³	≥ 2.050	≥ 2.050
Apparent Porosity	%	≤ 17	≤ 18
Physical Properties			
Cold Crushing Strength	MPa	≥ 40	≥ 25
Thermal Conductivity (1,100 °C)	W/mK	1,4	1,4
Chemical Analysis			
Al_2O_3	%	20-30	≥ 20
SiO_2	%	65-75	≥ 65
Fe_2O_3	%	< 3	< 3

Values are typical but not guaranteed, unless agreed otherwise.
Datasheets are available upon request.

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