



Melting & Holding Furnaces

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.

Gouda Refractories is a worldwide reference in the field of refractory solutions for the secondary aluminium industry. This is the result of years of continuous development and specific knowledge acquired in the design, the installation and use of refractory systems in the production of secondary aluminium.

For the process of remelting and casting primary aluminium, alloys and scrap, Gouda Refractories delivers tailor-made refractory linings for all types of melting and holding furnaces used by producers of both aluminium foundry and wrought alloys.

Gouda Refractories' bricks AK 85 P1, its successor AK 85 MP and LP 60 MP as well as a wide range of castables, the Alu-Cast range, have proven to be excellent materials for all types of aluminium alloys.



BURNER QUARL:

Hot Face:
Alu-Cast BR
Curas 85 PD (ramming)
Back-up:
GI 26 (insulation brick)
Duraboard 1100

LINTEL:

Castable:
Alu-Cast 60

DOOR:

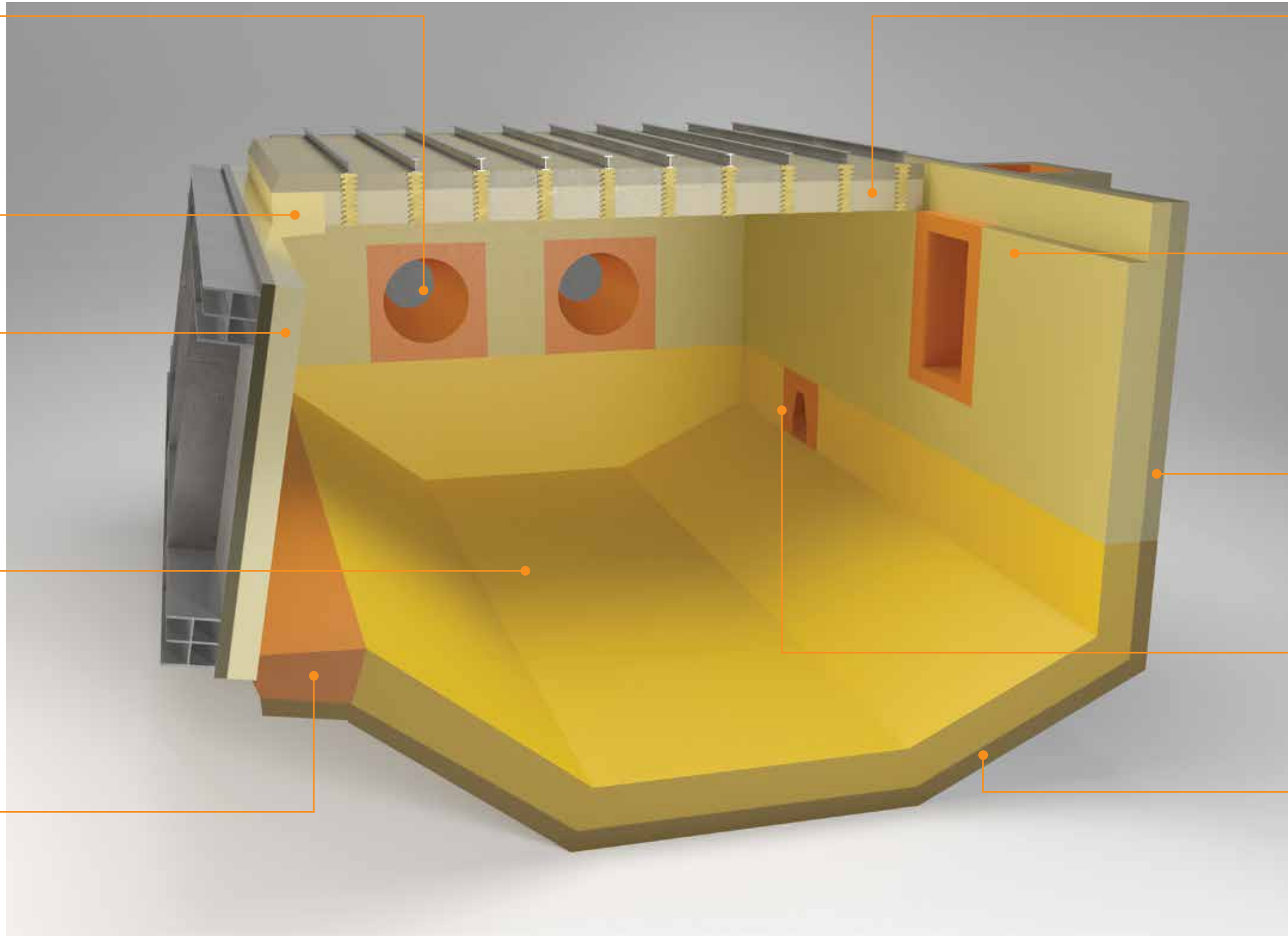
Hot Face:
Alu-Cast 60
Alu-Cast RD
Golite 135
Back-up:
Golite 125 XLW
Golite 1.0.6 mix C&G
Duraboard 1100

HOT FACE BATH AREA:

Castable:
Alu-Cast 75 G
Alu-Cast 80 HS
Alu-Cast 85 HS
Bricks:
AK 85 P1
AK 85 MP
Adhesiet 170 P Al (mortar)

SILL:

Castable:
Alu-Cast 80 HS
Alu-Cast 85 HS
Alu-Cast 90 HS



ROOF:

Hot Face:
Alu-Cast 60
Alu-Cast RD
Back-up:
Golite 125 XLW
Golite 1.0.6 mix C&G
Ceramic Anchor bricks:
AK 60 A

HOT FACE ABOVE BATH:

Castable:
Alu-Cast 50
Alu-Cast 60
Bricks:
AK 45
LP 60 MP
Adhesiet 170 P Al (mortar)

UPPER BACK-UP LAYER:

Castable:
Alu-Lite 35
Golite 1.2.4 Mix C&G
Insulation Bricks:
GI 23

TAP OUT & PUMP BLOCK:

Prefab Castable:
Vibron 180 K85
Alu-Cast 90 HS

LOWER BACK-UP LAYER:

Castable:
Alu-Cast 35
Alu-Lite 35
Insulation Bricks:
Moler Supra

Materials

Bricks	Service Temperature	Al ₂ O ₃	SiO ₂	Density	Porosity	CCS
AK 85 P1	1.300 °C	81%	8%	2.900 kg/m ³	14%	100 MPa
AK 85 MP	1.500 °C	83%	8%	2.850 kg/m ³	14%	130 MPa
AK 45	1.500 °C	45%	50%	2.300 kg/m ³	16%	55 MPa
LP 60 MP	1.600 °C	60%	36%	2.500 kg/m ³	12%	120 MPa
AK 60 A	1.680 °C	60%	37%	2.550 kg/m ³	13%	90 MPa

Castables	Service Temperature	Al ₂ O ₃	SiO ₂	Density at 110 °C	Grain size	CCS at 815 °C
Alu-Cast 35	1.300 °C	35%	45%	2.050 kg/m ³	< 8 mm	30 MPa
Alu-Cast RD	1.300 °C	50%	41%	2.200 kg/m ³	< 8 mm	40 MPa
Alu-Cast 60	1.300 °C	58%	30%	2.600 kg/m ³	< 7 mm	90 MPa
Alu-Cast 75 G	1.300 °C	78%	8%	2.900 kg/m ³	< 8 mm	90 MPa
Alu-Cast 80 HS	1.300 °C	84%	8%	2.900 kg/m ³	< 8 mm	120 MPa
Alu-Cast 85 HS	1.300 °C	88%	3,5%	3.250 kg/m ³	< 6 mm	135 MPa
Alu-Cast 90 HS	1.300 °C	90%	2,5%	2.950 kg/m ³	< 6 mm	130 MPa
Alu-Cast BR	1.400 °C	85%	10%	2.850 kg/m ³	< 6 mm	40 MPa
Curas 85 PD	1.650 °C	85%	7%	2.700 kg/m ³	P ₂ O ₅ : 2%	Fe ₂ O ₃ : < 1,5%
Vibron 160 K85	1.600 °C	3%	10%	2.650 kg/m ³	SiC: 85%	80 MPa
Alu-Lite 35	1.300 °C	35%	40%	1.650 kg/m ³	< 5 mm	12 MPa
Golite 1.0.6. Mix C&G	1.000 °C	29%	27%	600 kg/m ³	< 4 mm	0,8 MPa
Golite 125 XLW C&G	1.250 °C	38%	39%	575 kg/m ³	< 5 mm	1,5 MPa
Golite 135	1.350 °C	36%	44%	1.400 kg/m ³	< 6 mm	6 MPa

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



References(*)

Alba	Gautschi Engineering	Midal Cables
Alcoa	Hertwich Engineering	Otto Junker
Aleris	Hindalco	Rio Tinto Alcan
Aluminij Mostar	Hulamin	Sapa
AluNorf	Hunter Douglas	Sistem Teknik
Bartz Maschinenbau	Hydro	Sohar Aluminium
Constellium	Impol Seval	Solios Thermal
CSAC	LOI Thermprocess	Stena Aluminium
Egyptalum	Mechatherm	Suzhou Boneng
Garmco, Bahrein	Meyer Aluminium	Talum

(*) = Complete list of references is available upon request.