

1 Cathode safety layer

Calderys can offer products approved for various potcell technologies like RTA AP, Hydro, Dubal DX, etc.

Barrier brick

 AC 30 D AL: reference brick solution available in different sizes (AP, DX)

Mortar

- CALDE® TROWEL HQ 82 U: ready to use mortar (AP, DX)
- CALDE® TROWEL HQ 85 U (Hydro)
- ACEMIX DV AL: reference DVM solution (Gami)

2 Cathode blocks leveling

- ACEMIX DV AL: standard leveling DVM solution. Efficient & cost-effective barrier compared to metallurgical alumina
- CALDE® DRY F 45 LD G3: dust-free solution. EHS friendly material with better resistance to bath compounds than alumina

3 Cathode bar sealing monolithic

Products approved for various potcell technologies like RTA AP, Hydro, Alcoa, GAMI, Dubal DX, VAW, Kaiser, etc.

- CALDE® CAST BETON N: reference solution (AP, DX)
- CALDE® CAST F 36 G2 (Hydro)

4 Side wall conductive mortar

CALDE®TROWEL S 80

5 Under deck plate sealing

• CALDE® GUN C 20 (AP): for easy installation

Metal transfer ladle

- ALKON® FLOW LB 75: standard self-flowing castable solution. Requires followed dry-out.
- ALKON® FLOW LB 83 FF: for upgrade Cast in situ or in precast piece.
- ALKON® CAST MF 52 HR: for downgrade Cast in situ or in precast piece.

Self-flowing castable solution in walls is providing increased lifetime with easier dross cleaning and maximum ladle capacity.

Requires followed dry-out.

• AC 42 D: standard brick solution

Flooring

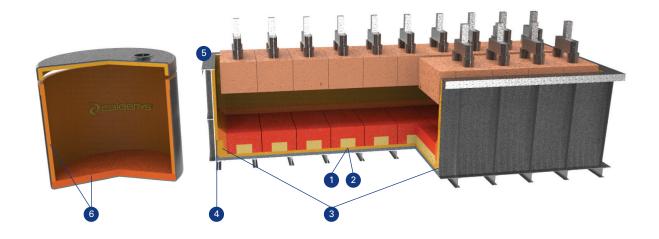
Different local solutions available for flooring with high abrasion resistance, refractoriness and good electrical insulation.

Cast in-situ or in tiles.

- CALDE® CAST M 23: standard solution
- CALDE® CAST W 45 G10: upgrade abrasion resistant solution

Cryolite bath transfer crucible

• AC 42 D: standard brick solution







REFRACTORY SPECIFICATIONS

Selection of products shall be done in accordance with furnace process conditions. Calderys invites you to fill in a dedicated questionnaire to confirm product selection regarding temperature level, cycling, alloys, salt/flux usage, and charging/skimming practices.

Selection of product/design shall be done in accordance with shut-down duration requirements; solutions can differ based on the importance of speed. Tailor-made solutions such as pumping/gunning, easy dry-out materials, up to full precast can be supplied to lower cost of ownership when production loss per day is of high value.

The performance of the final solution is sensitive to the installation quality, from the equipment performance to the manpower skills/ respect of refractory placement procedures. Calderys invites customers to engage its supervision of the installation work, up to full turnkey solutions to control the overall quality of the project: shutdown schedule, installation, dry-out and furnace commissioning.

Please ensure any product selection and/or design is validated by your Calderys sales representative.

Product name	Main componant	Binding System	Max. Recomm. temp.(°C)	Density (g/cm³)	Ease of Dry Out	Chemical analysis (avg %)			
						Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	SiC
AC 30 D AL	Alumina, Silica	Ceramic	1350	2.08	30.8	63.0	2.1		2.9
AC 42 D	Alumina, Silica	Ceramic	1480	2.32	45.0	50.6	1.3		-
ACEMIX DV AL	Alumina, Silica	Ceramic	1550	1.96	38.0	54.8	1.8		-
ALKON® CAST MF 52 HR	Chamotte	Hydraulic	1420	2.36	50.0	42.0	0.8		-
ALKON® FLOW LB 75	Bauxite	Hydraulic	1200	2.70	73.5	20.0	1.2		-
ALKON® FLOW LB 83 FF	Bauxite	Hydraulic	1200	2.80	82.7	12.0	0.6		-
CALDE® CAST BETON N	Chamotte	Hydraulic	1350	2.02	39.5	44.5	4.5		-
CALDE® CAST F 36 G2	Chamotte	Hydraulic	1350	2.10	35.0	45.0	5		-
CALDE® CAST M 23	Chamotte	Hydraulic	1350	2.05	36.0	50.0	3.2		-
CALDE® CAST W 45 G10	Alag	Hydraulic	1100	2.53	43.5	4.0	14.5		-
CALDE® DRY F 45 LD G3	Chamotte	Ceramic	1750	1.90	45.5	51.5	0.7		-
CALDE® GUN C 20	Chamotte	Hydraulic	1350	2.05	38.5	47.5	4.8		-
CALDE® TROWEL HQ 82 U	Quartzite	Chemical	1350	1.75	14.0	81.5	0.4		-
CALDE® TROWEL HQ 85 U	Quartzite	Chemical	1600	1.75	9.0	85.0	2		-
CALDE® TROWEL S 80	Silicon Carbide	Hydraulic	1500	2.50	10.0	5.7	0.2	78.5	2.8

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