



ALUMINIUM INDUSTRY

ALUMINIUM
REFRACTORY CONCEPT SOLUTIONS



TOGETHER
FOR **MORE**

AT CALDERYS, OUR MISSION IS TO **DELIVER VALUE TO OUR CUSTOMERS.**

We are a world leader in providing refractory solutions and services. Our value proposition to you is built on combining our world-class refractory product portfolio with our ability to deliver high-quality project management services - from planning and installation, to turnkey delivery and commissioning.

Across all the industries we serve – Iron, Steel, Foundry, Aluminium, Cement, Power, and Petrochem - we deliver to you our promise of superior product performance and value-adding service, thanks to our global network of specialized industry experts and project management professionals.

Our journey of 100 years is a testimony of our commitment to our customers. We listen to you and understand your requirements. We believe in working as one team with you and aiming for continuous improvement.

Together, we always reach an extra mile for our customers in our mission of delivering MORE.

Over 2,500 employees across

31 COUNTRIES

3 R&D CENTERS

and 11 Design & Engineering Centers

18 PLANTS

in 15 Countries

Annual Revenue of over

500 MILLION EUROS

Wholly-owned Subsidiary of

IMERYS GROUP

PARTNERING YOU IN THE ALUMINIUM INDUSTRY FOR MORE

Calderys is a leading provider of refractory solutions and services to the primary and secondary aluminium industries as well as the aluminium foundry industry across the world. Our global network of aluminium industry experts ensure that we propose the most suitable products based on your requirements and deliver you superior refractory performance and reliable solutions. We are able to do so by combining our innovative product range and modern installation techniques with end-to-end project management services.



IMPROVED PRODUCTIVITY

Thanks to reduced downtime and longer campaign life

IMPROVED EFFICIENCY AND COST-EFFECTIVENESS

Thanks to the reaction time of our teams, design and material selection dedicated to your process conditions and answering your technical and economical needs.

ENHANCED SAFETY AND QUALITY

Thanks to high safety standards of our solutions and the consistency in product and service quality.

OUR END-TO-END PRODUCTS AND SERVICES DEDICATED TO ALUMINIUM INDUSTRY ENCOMPASS:

PRODUCT PORTFOLIO

Our comprehensive product portfolio for aluminium industry under the ALKON® range covers full range of furnaces and equipment with refractory lining used in the industry - Tank melting and Holding furnaces, Recycling furnaces, Barrel melting furnaces, Single chamber shaft melting furnaces, Bi-chamber shaft melting furnaces, Crucible induction & Channel furnaces, Dosing furnaces, Road transport ladles and Runners.

DESIGN

Our design offices located at Budapest (Engineering Center Europe) and Nagpur (Engineering Center Asia), apart from our network of design engineers spread globally, are always available to provide best designs to improve your equipment performance.

Our capabilities include high-quality refractory installation services using our own equipments. Our dedicated products for shotcreting and modern gunning techniques reduce stoppages / downtime, thanks to faster installation. Through our reliable services, customers achieve cost optimization by way of energy savings, reduced turnaround time, low wastage and excellent quality of finished installation for optimal performance.

With your collaboration our team will understand your process conditions (temperature, alloys, flux, mechanical stress, etc.) and your production targets to offer you a tailor-made solution and support you towards better performance.

INSTALLATION

We offer permanent on-site refractory services including regular and predictive

maintenance and repairs using gunning, casting and patching techniques.

TURNKEY INSTALLATION

We provide complete project management services including consultation, planning, delivery scheduling, supervision, site management and also direct training for customer personnel. Be it large, small or turnkey projects - our end-to-end project management services ensure on-time and on-budget completion.

MAINTENANCE

We offer permanent on-site refractory services including regular and predictive maintenance and repairs using gunning, casting and patching techniques.

PRIMARY ALUMINIUM

We propose specific and successful products in Primary Aluminium.

Anode baking furnace

CALDE™ CAST BETON N & CALDE™ LW
& CALDE™ MW
Insulating layers
Precast burner blocks for the walls



Alumina calcining rotary kiln or flash furnace

CALDE™ CAST M 28 HR
Abrasion resistance and excellent thermal shock resistance

CALDE™ CAST M 32
Abrasion resistance and excellent thermal shock resistance

Precast piece



Electrolysis cells

ALKON® PATCH F 45
Levelling upper-side walls

CALDE™ CAST BETON N
Side walls supporting layer

CALDE™ FLOW AZ
Tightening collectors bars & protecting the croust crusher feet

CALDE™ TROWEL HQ 82 U
Installing insulation and dense sub-layers bricks

Transfer ladles

ALKON® CAST LB 85

ALKON® FLOW LB 75

ALKON® FLOW LB 85

TANK MELTING AND HOLDING FURNACES

Bath lining

MELTING FURNACE

ALKON® CAST 204
ALKON® CAST BL 80 B3
ALKON® CAST HYMOR 80 AL
ALKON® CAST LB 85
ALKON® CAST NB 84 QD

PURE ALUMINIUM

ALKON® CAST MC 88
ALKON® CAST MT 90

Roof & Upper walls

ALKON® CAST MF 50
CALDE™ CAST M 28 HR
CALDE™ CAST ML 55 S5
CALDE™ GUN C 28 HR

Insulation

ROOF/WALL

CAL DE™ GUN LW 128
CAL DE™ CAST LW MIX 124 C/G

Chimney

ALKON® CAST MW 14 C/C

Doors

ALKON® CAST MF 50
ALKON® CAST MM 60
ALKON® CAST MW 14 C/G

Burner blocks

CALDE™ CAST LX 58
CalDE™ PlaST 85 S
CalDE™ PlaST P 85

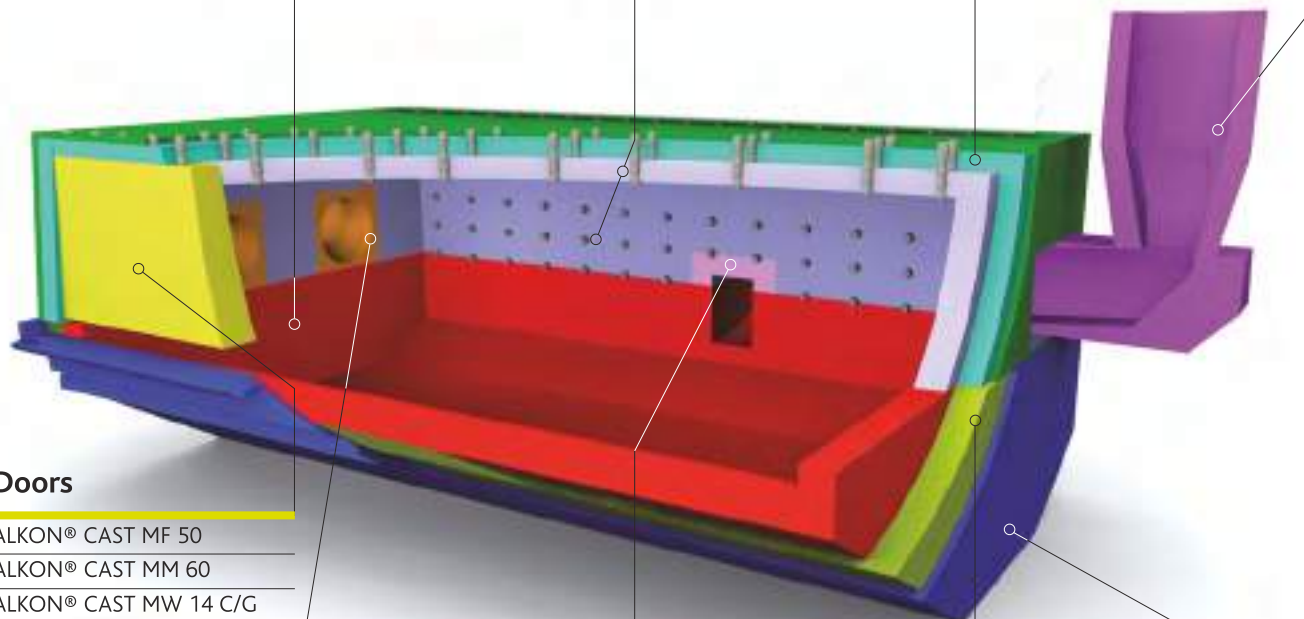
Lintel & pillars

CALDE™ CAST GIBRAM
CALDE™ CAST LX 58
CALDE™ CAST M 32

Bath insulation & safety lining

ALKON® CAST F 35 C/G
ALKON® CAST LW 10 C/G
ALKON® CAST MW 14 C/G

Insulating boards



RECYCLING FURNACES

Upper wall insulation

CALDE™ CAST LW MIX 124 C/G
CALDE™ GUN LW 128
CALDE™ GUN MW 130
Insulating bricks (if plastic)

Roof insulation

CALDE™ CAST LW MIX 124 C/G
CALDE™ GUN LW 128

Roof lining

ALKON® CAST MF 50
CALDE™ CAST LX 58
CALDE™ CAST M 28 HR

Lintel & pillars

CALDE™ CAST GIBRAM
CALDE™ CAST LX 58
CALDE™ CAST M 32

Bath insulation & safety lining

ALKON® CAST F 35 C/G
ALKON® CAST MW 14 C/G

Insulating boards

Bath lining

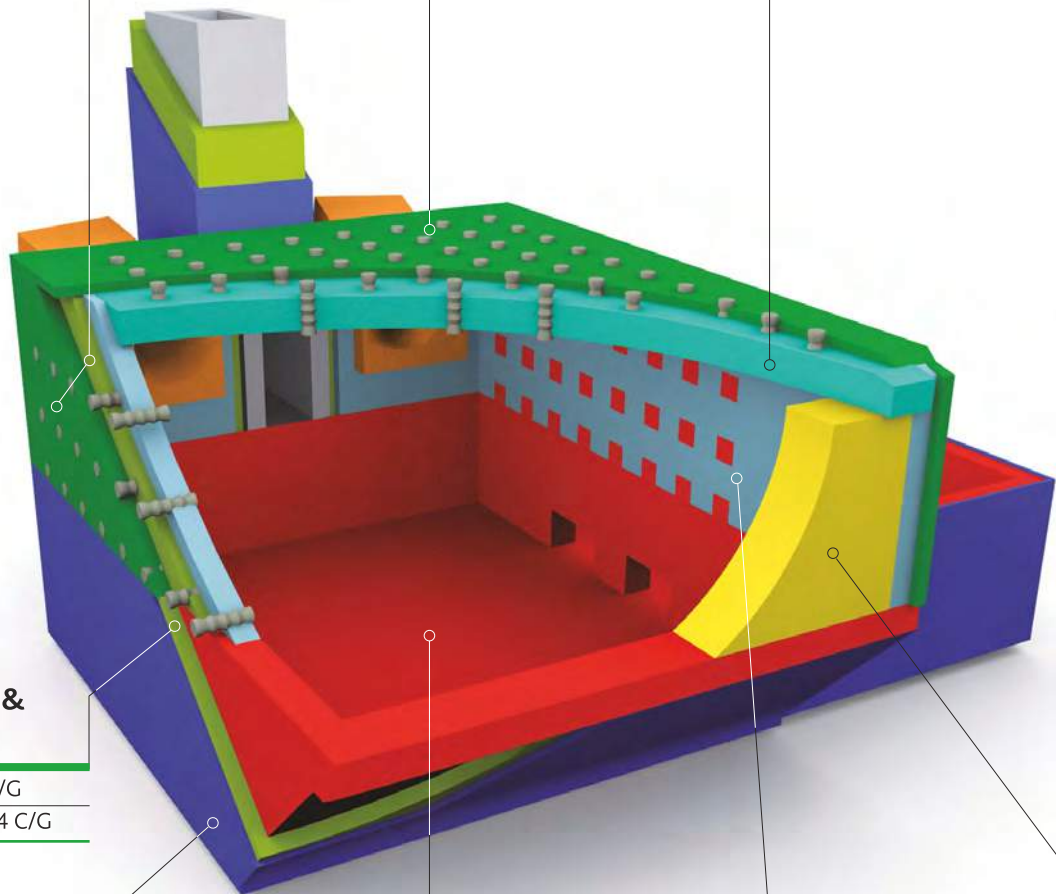
ALKON® CAST 204
ALKON® CAST HYMOR 80 AL
ALKON® CAST BL 80 B3
ALKON® CAST LB 85
ALKON® CAST NB 84 QD

Upper walls lining

ALKON® CAST MM 60
ALKON® GUN F 48 B
CALDE™ CAST ML 55 S5
CALDE™ CAST LX 58
CALDE™ PLAST 85 S

Door lining

ALKON® CAST MF 50
ALKON® CAST MM 60



BARREL MELTING FURNACES

Bath lining

ALKON® CAST 204
 ALKON® CAST HYMOR 80 AL
 ALKON® CAST BL 80 B3
 ALKON® CAST LB 85
 ALKON® CAST MC 88
 ALKON® CAST NB 84 QD

PURE ALUMINIUM

ALKON® CAST MT 90

Safety & Insulation

ALKON® CAST MW 14 C/G
 CALDE™ GUN LW 128

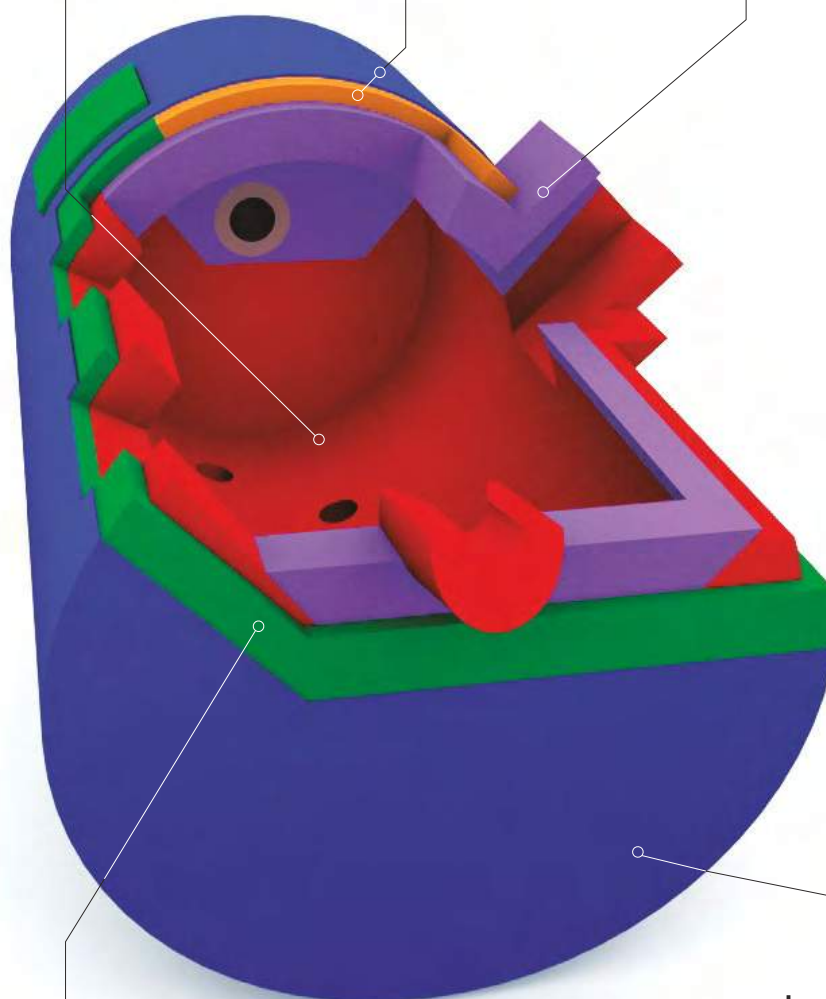
Roof & upper walls

ALKON® GUN C 75
 CALDE™ CAST LX 58
 CALDE™ PLAST 85 S
 CALDE™ PLAST P 85

Bath insulation & safety lining

ALKON® CAST F 35 C/G
 ALKON® CAST LW 10 C/G
 ALKON® CAST MW 14 C/G

Insulating boards



SINGLE CHAMBER SHAFT MELTING FURNACES

Bath safety & insulation

ALKON® CAST F 35 C/G
ALKON® CAST MW 14 C/G
CALDE™ CAST F 32 C/G

Roof insulation

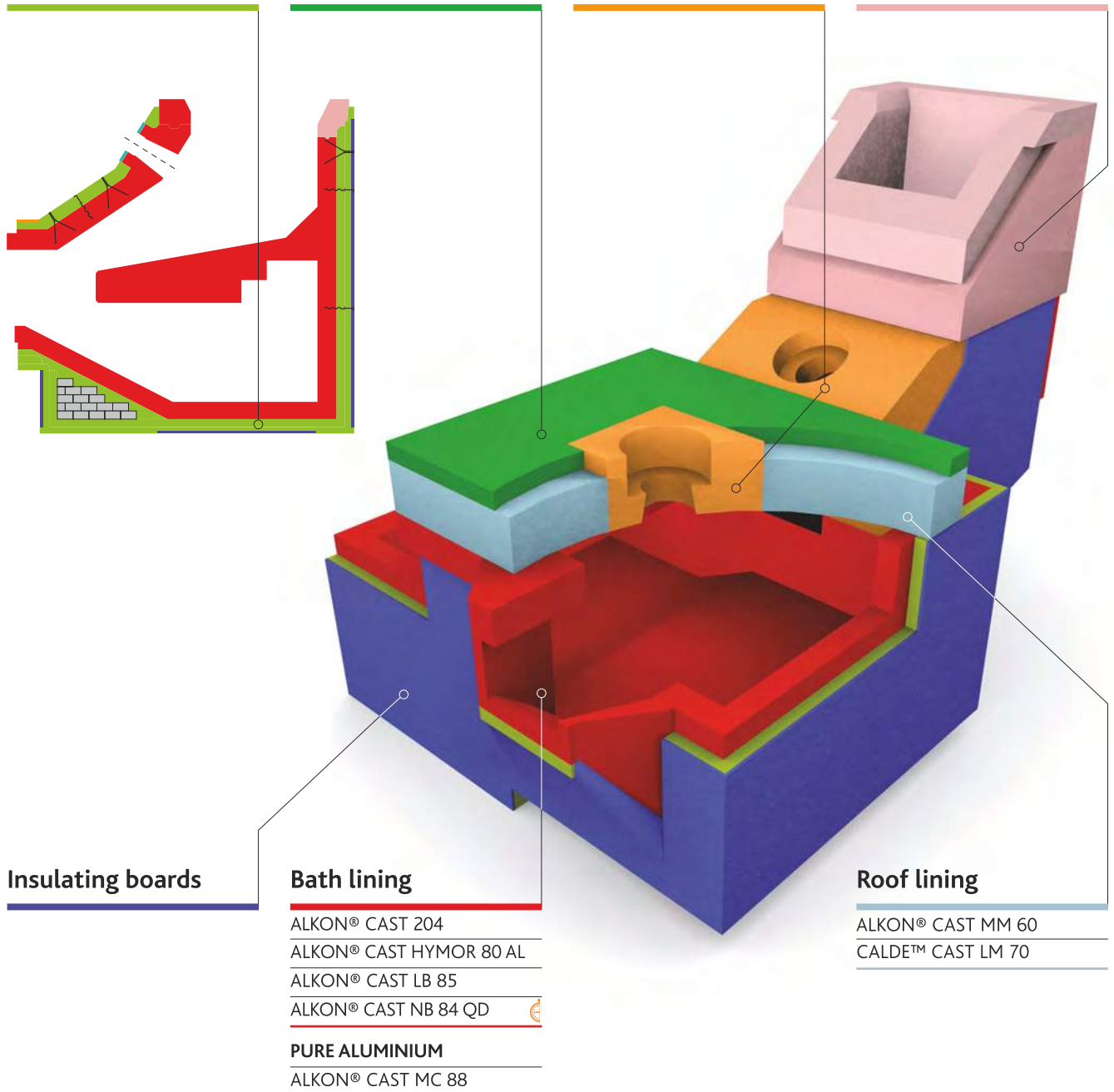
CALDE™ CAST LW MIX 124 C/G
CALDE™ CAST XL 106 C/G

Burner blocks

ALKON® CAST MM 60
CALDE™ CAST LM 70

Charging shaft

CALDE™ CAST 1560
CALDE™ CAST M 32
CALDE™ CAST MF 50



Insulating boards

Bath lining

ALKON® CAST 204
ALKON® CAST HYMOR 80 AL
ALKON® CAST LB 85
ALKON® CAST NB 84 QD

PURE ALUMINIUM

ALKON® CAST MC 88

Roof lining

ALKON® CAST MM 60
CALDE™ CAST LM 70

BI CHAMBER SHAFT MELTING FURNACES

Burner blocks

ALKON® CAST MM 60
CALDE™ CAST LM 70

Charging shaft

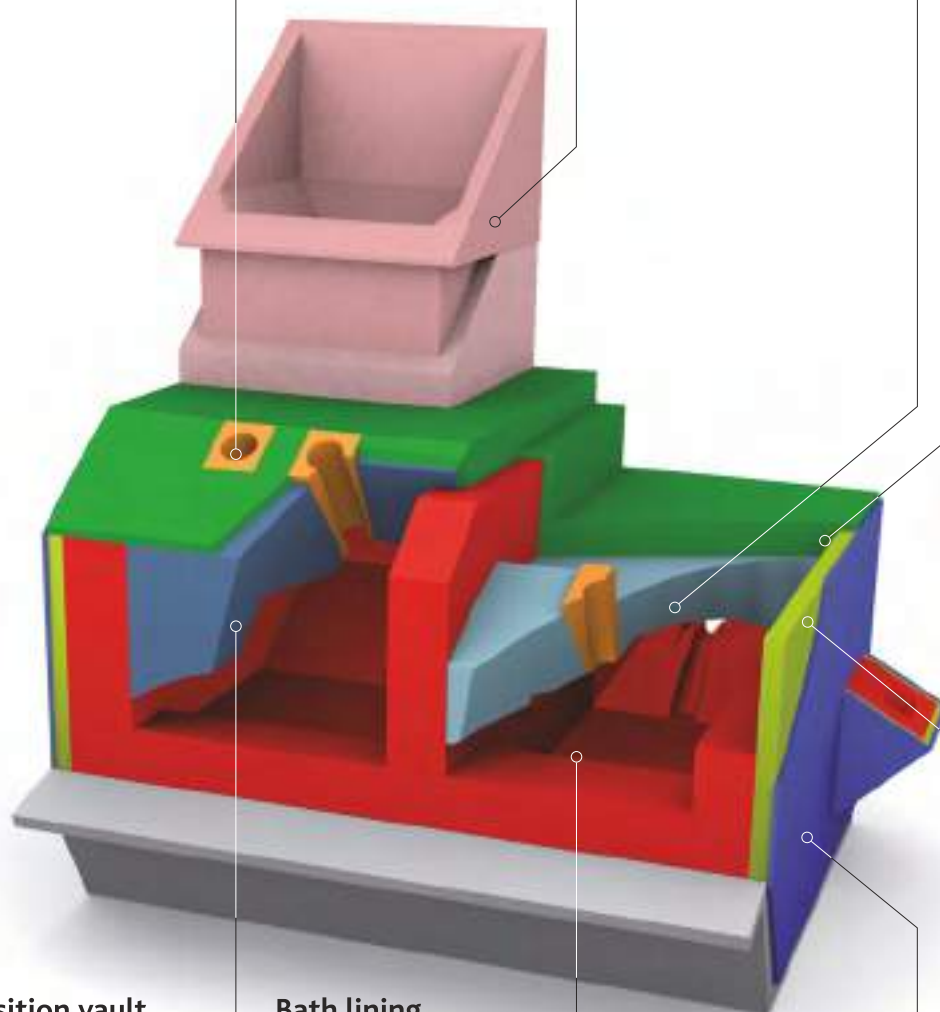
CALDE™ CAST 1560
CALDE™ CAST M 32
CALDE™ CAST MF 50

Roof lining

ALKON® CAST MM 60
CALDE™ CAST LM 70

Roof insulation

CALDE™ CAST LW MIX 124 C/G
CALDE™ CAST XL 106 C/G



Transition vault

ALKON® CAST HYMOR 80 AL
ALKON® CAST LB 85
ALKON® CAST MT 90

Bath lining

ALKON® CAST 204
ALKON® CAST HYMOR 80 AL
ALKON® CAST LB 85
ALKON® CAST NB 84 QD

PURE ALUMINIUM

ALKON® CAST MC 88

Insulating boards

Bath safety & insulation

ALKON® CAST F 35 C
ALKON® CAST MW 14 C/G
CALDE™ CAST F 32 C/G

CRUCIBLE INDUCTION & CHANNEL FURNACES

Crucible & inductor

ALKON® CAST LC 95
ALKON® CAST MM 60
ALKON® DRY BC 90
ALKON® RAM PB 85
PREFABRICATED PIECE

Bath lining

ALKON® CAST LB 85
ALKON® CAST HYMOR 80 AL

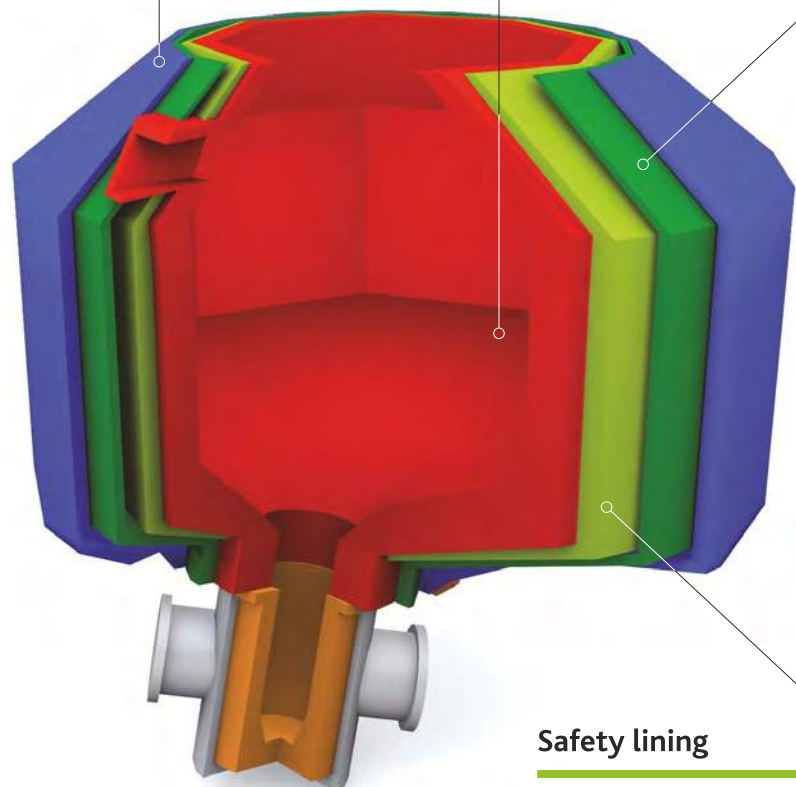
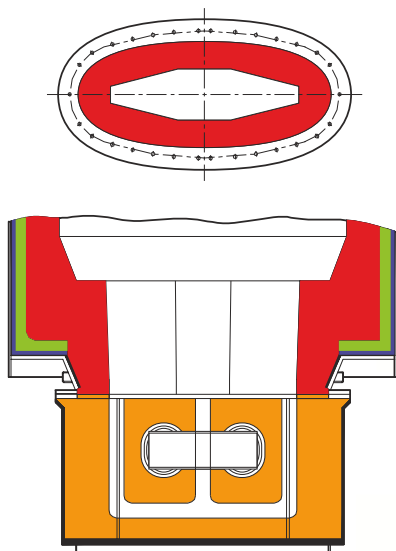
PURE ALUMINIUM

ALKON® CAST MC 88

Insulation

ALKON® CAST LW 10 C/G
CALDE™ CAST LW MIX 124 C/G

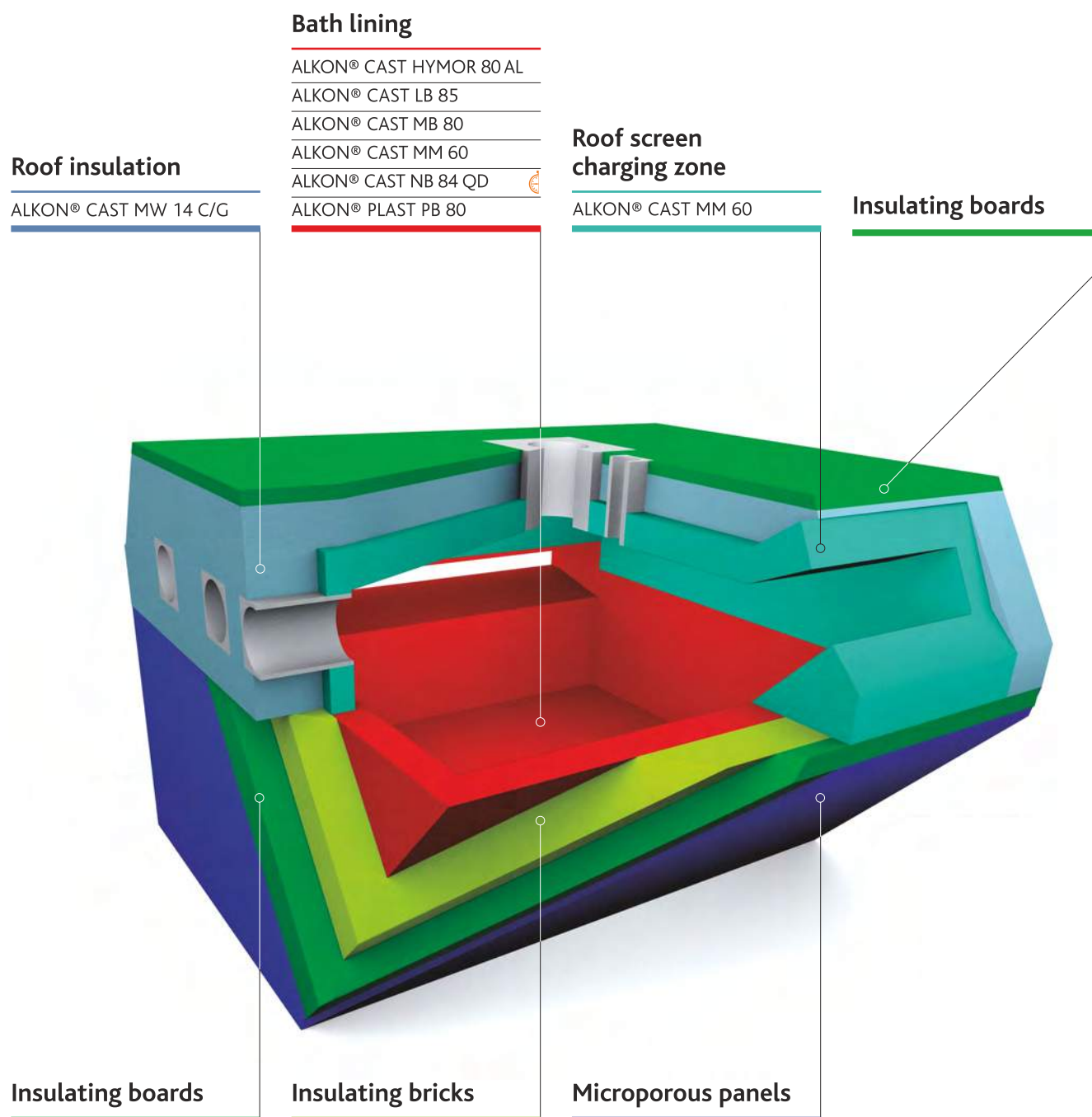
Shell insulation



Safety lining

ALKON® CAST F 35 C/G
ALKON® CAST MW 14 C/G

DOSING FURNACES



ROAD TRANSPORT LADLES

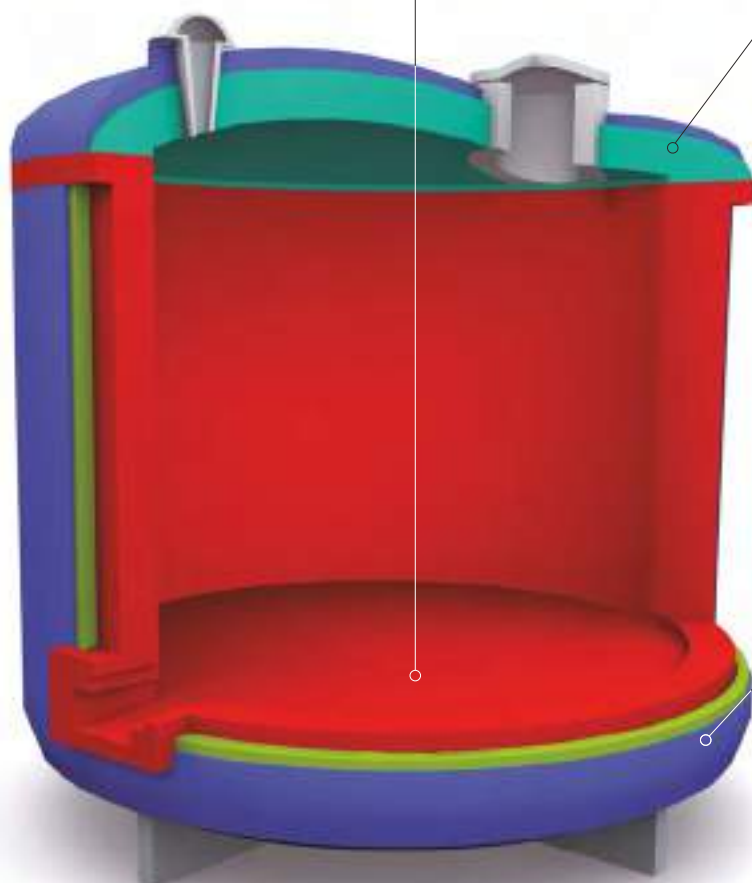
Bath lining

ALKON® CAST MF 50
ALKON® CAST MM 60
ALKON® CAST NB 84 QD
ALKON® FLOW LB 85

Cover lining

ALKON® CAST MW 14 C/G

Insulating bricks & boards



REPAIRS

Gunning

ALKON® GUN 402

ALKON® GUN C 75

ALKON® GUN F 50

ALKON® GUNT 85

ALKON® STIX F 45



Casting

ALKON® CAST 204

ALKON® CAST HYMOR 80 AL

ALKON® CAST NB 84 QD

ALKON® FLOW LB 85




Patching

ALKON® STIX C 75

ALKON® STIX F 45

TECHNICAL DATA

Product name	Main component	Max. recomm. temp. (°C)	Chemical analysis (wt %)			Material required (t/m ³)
			Al ₂ O ₃	Fe ₂ O ₃	CaO	
ALKON® CAST 204	Bauxite	1200	79.50	1.10	4.30	2.82
ALKON® CAST BL 80 B3	Bauxite	1400	83	0.80	2.30	3
ALKON® CAST F 35 C/G	Chamotte	1280	34	2.70	6.60	1.83
ALKON® CAST HYMOR 80 AL	Corundum	1420	80	0.30	4.60	3.05
ALKON® CAST LB 85	Bauxite	1300	84	-	2.70	2.90
ALKON® CAST LC 95	Corundum	1300	92.50	0.10	2.20	3.15
ALKON® CAST LW 10 C/G	Insulating Chamotte	1200	44.50	1.70	9.40	1.05 (cast) 1.20 (gun)
ALKON® CAST MB 80	Bauxite	1400	81	1.30	3.10	2.84
ALKON® CAST MC 88	Corundum	1500	87	0.10	3	3.25
ALKON® CAST MF 50	Chamotte	1480	50	0.80	4.30	2.33
ALKON® CAST MM 60	Chamotte	1450	61	0.90	3	2.60
ALKON® CAST MT 90	Tabular Alumina	1550	90	0.10	2.90	3.10
ALKON® CAST MW 14 C/G	Insulating Chamotte	1200	40	3	14	1.42 (cast) 1.70 (gun)
ALKON® CAST NB 84 QD 	Bauxite	1300	84	0.70	1	2.90
ALKON® DRY BC 90	Corundum	1400	92.40	0.20	1.80	3
ALKON® FLOW LB 85	Bauxite	1200	84.50	1	2.70	2.90
ALKON® GUN 402	Corundum	1500	84	0.20	6.50	2.90
ALKON® GUN C 75	Corundum	1420	74	0.30	7.50	2.85
ALKON® GUN F 48 B	Low Iron Chamotte	1400	48	0.70	7.50	2.30
ALKON® GUN F 50	Chamotte	1400	50	1	6.30	2.30
ALKON® GUN T 85	Tabular Alumina	1600	84	0.10	6.10	2.90
ALKON® PATCH B 80	Corundum	1500	79.50	1	4.80	2.40
ALKON® PATCH PT 85 U	Tabular Alumina	1200	85	0.10	-	2.10
ALKON® PLAST PB 80	Bauxite	1200	79	1.30	-	3
ALKON® RAM PB 85	Bauxite	1400	85	0.90	-	3.20
ALKON® STIX C 75	Corundum	1420	76	0.10	7.40	2.45
ALKON® STIX F 45	Low Iron Chamotte	1420	45	1	7.30	2.10 (troweled)

TECHNICAL DATA

Product name	Main component	Max. recomm. temp. (°C)	Chemical analysis (wt %)			Material required (t/m ³)
			Al ₂ O ₃	Fe ₂ O ₃	CaO	
CALDE™ CAST 1560	Andalusite	1650	59	1.10	2.20	2.50
CALDE™ CAST BETON N	Chamotte	1350	39.50	4.50	8.10	1.93
CALDE™ CAST F 32 C/G	Chamotte	1280	33	2.30	6.20	1.85 (cast) 2.16 (gun)
CALDE™ CAST GIBRAM	Bauxite	1600	82.50	1.50	1.20	2.90
CALDE™ CAST LM 70	High Alumina	1650	70	0.70	1.90	2.51
CALDE™ CAST LW MIX 124 C/G	Insulating Chamotte Vermiculite	1140	24	9.50	15	0.94 (cast) 1.24 (gun)
CALDE™ CAST LX 58	Andalusite	1650	57	1.10	2.30	2.50
CALDE™ CAST M 28 HR	Chamotte	1550	45.50	1.30	3	2.20
CALDE™ CAST M 32	Bauxite	1600	77.70	1	3.10	2.65
CALDE™ CAST MF 50	Chamotte	1480	50	0.80	4.30	2.33
CALDE™ CAST ML 55 S5	High Alumina	1550	55	0.90	1.40	2.50
CALDE™ CAST XL 106 C/G	Vermiculite	1060	22	9	17.50	0.51 (cast) 0.73 (gun)
CALDE™ FLOW AZ	Andalusite Zircon	1650	59	0.50	1.50	2.80
CALDE™ GUN C 28 HR	Chamotte	1500	51	1.10	6.90	2.35
CALDE™ GUN LW 128	Vermiculite Light-weight Aggregates	1280	37	4	9	1.35
CALDE™ GUN MW 130	Insulating Chamotte	1300	36.40	6	10	1.30
CALDE™ PLAST 85 S	Bauxite	1700	85	0.90	-	2.95
CALDE™ PLAST P 85	Bauxite	1650	82	1.30	-	3.10
CALDE™ TROWEL HQ 82 U	Quartzite	1350	82.50 - SiO ₂	0.40	-	1.75

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