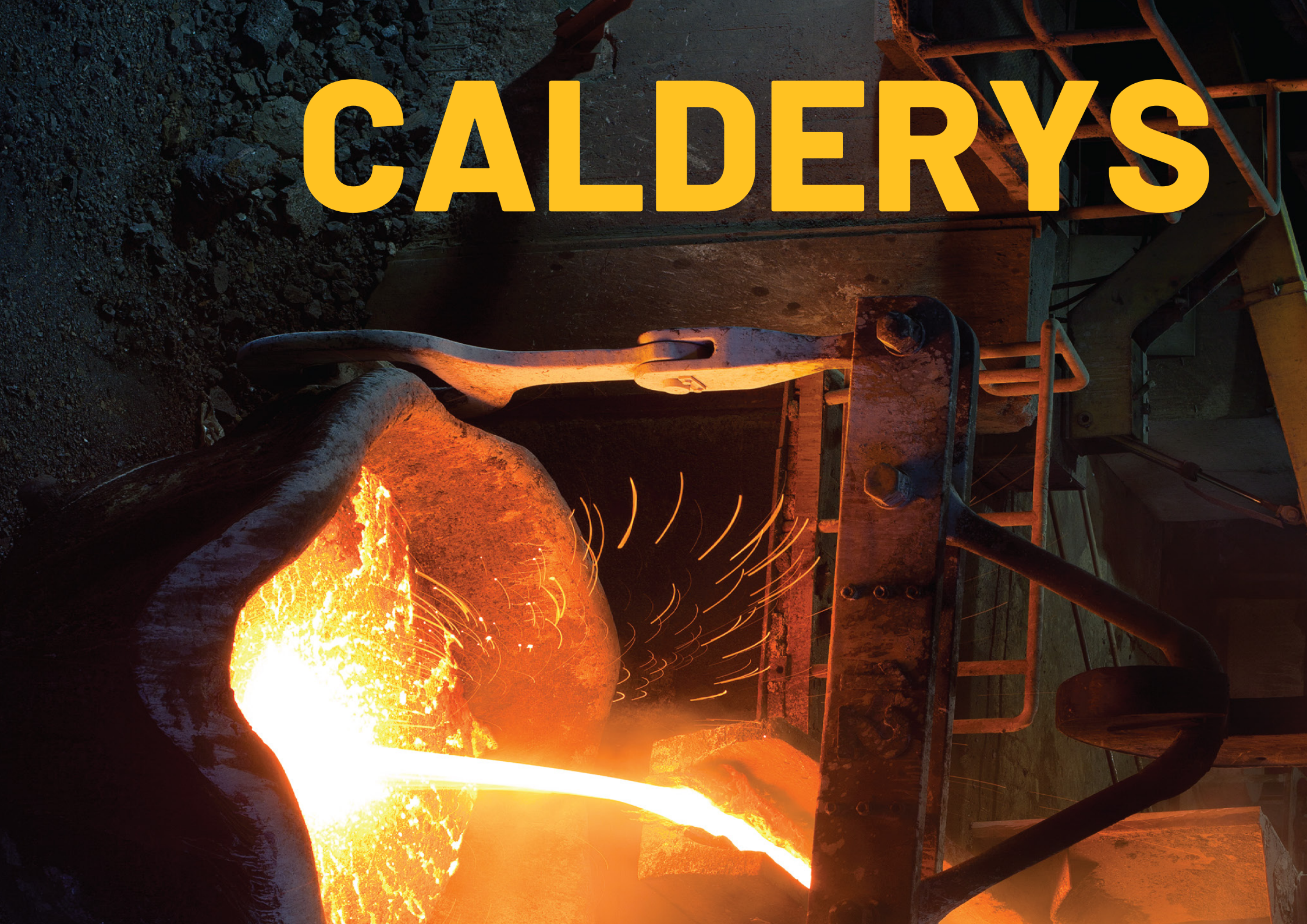

ALUMINUM
calderys


CALDERYS

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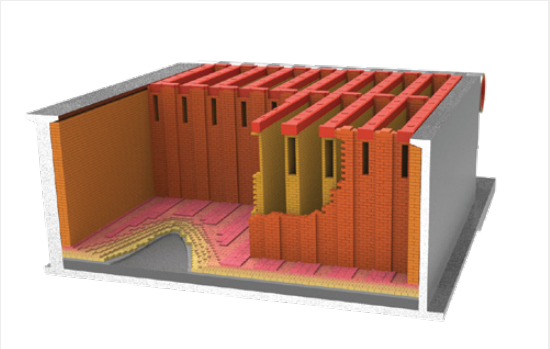
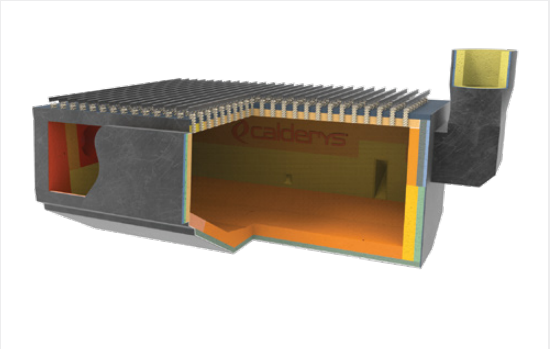
Product Name	Main component	Chemical composition		Maximum Operating temperature (°C)	Construction requirements (t/m^3)	Standard water addition volume(%)	Bulk density after drying at 110°C	Application areas / Features
		Al_2O_3	SiO_2					
Castable								
ALKON® CAST 204	Bauxite	79.7	9.0	1200	2.8	5.2 - 6.2	2.81 (g/cm^3)	General-purpose castable
ALKON® CAST MM 68	Mullite	68.0	14.0	1600	2.6	5.7 -6.3	2.6 (g/cm^3)	Aluminum
CALDE® AL CAST LB 85 IP	Bauxite	82.0	10.0	1500	2.7	4.8 -5.4	2.73 (g/cm^3)	For aluminum contact
CALDE® CAST 1560	Andalusite	59.0	36.0	1650	2.5	6.4 -7.6	2.45 (g/cm^3)	General-purpose castable
CALDE® CAST LB 85	Bauxite	83.0	10.0	1650	2.7	4.6 - 5.15	2.75 (g/cm^3)	High Abrasion resistance
CALDE® FLOW LF 63 A		62.0	29.0	1600	2.4	5.8 - 6.4	2.47 (g/cm^3)	Abrasion resistance, Alkali resistance, Easy flow
Castable C-14		63.0	26.0	1400	2.3	10.0 - 12.0	2.25 (g/cm^3)	General-purpose castable
Castable C-15 BRS		66.0	25.0	1500	2.5	4.0 - 5.5	2.54 (g/cm^3)	General-purpose castable
Castable C-16 BRS	Bauxite	67.0	24.0	1650	2.5	6.2 - 6.8	2.55 (g/cm^3)	High temperature & thermal shock resistance
Castable RORAM-GB AL 5	Bauxite	84.0	11.0	1700	2.7	5.2 - 5.8	2.79 (g/cm^3)	Anti wetting, abbrasive & impact resistance
Insulation								
ALKON® CAST MW 14 C/G IP		41.0	37.0	1400	1.3	31.4 - 34.7	1.33 (g/cm^3)	Aluminum
CALDE® CAST LW 121 C/G		40.0	40.0	1200	1.0	46.5 - 51.5	1.10 (g/cm^3)	General-purpose castable
CALDE® CAST LW 134 CO C/G	Chamotte, Perlite	44.0	43.0	1350	1.1	40.0 - 46.0	1.17 (g/cm^3)	General-purpose castable
Mortar								
Mortar M-32	Chamotte	31.0	62.0	-	-	29.5 - 32.5	-	Fire clay brick SK-32
Mortar M-34	Chamotte	36.0	58.0	-	-	35.0 - 40.0	-	Fire clay brick SK-34
Mortar M-80 AL	Bauxite	89.0	5.0	-	-	39.0 - 41.0	-	High alumina brick
N-10 IP	Bauxite	48.0	40.0	1150	-	40.0 - 45.0	-	Insulation Brick

- The figures stated are representative values and are not guaranteed. They are subject to change without notice.
- For products ending with C/G, the physical property values are those at the time of pouring.
- The required quantity of sprayed material does not include rebound loss or finishing loss.
- We also stock a wide range of other castables. Please feel free to enquire.

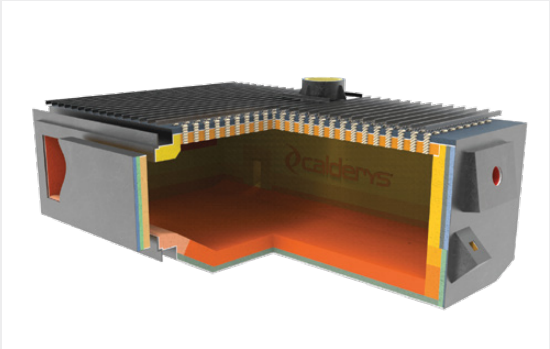


Anode baking furnace

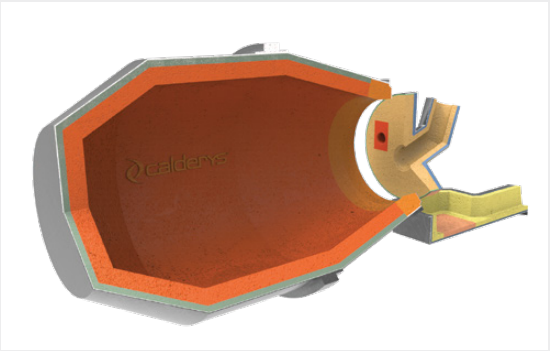
Coreless induction furnace



Holding furnace

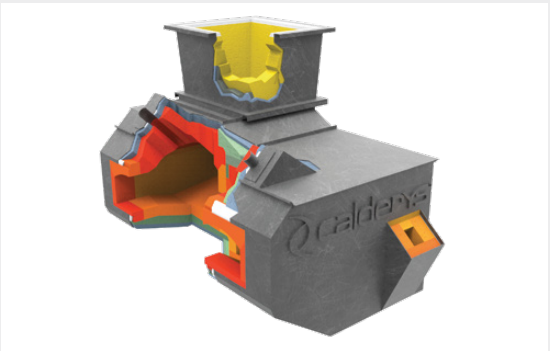


Reverberatory melting furnace



Rotary furnace

Transport ladle



Twin chamber furnace

Calderys provides innovative technologies and numerous products based on its worldwide track record and extensive experience.

From material supply to various furnace construction works and overseas project assignments, we offer flexible solutions to meet all your company's requirements.

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CEMENT

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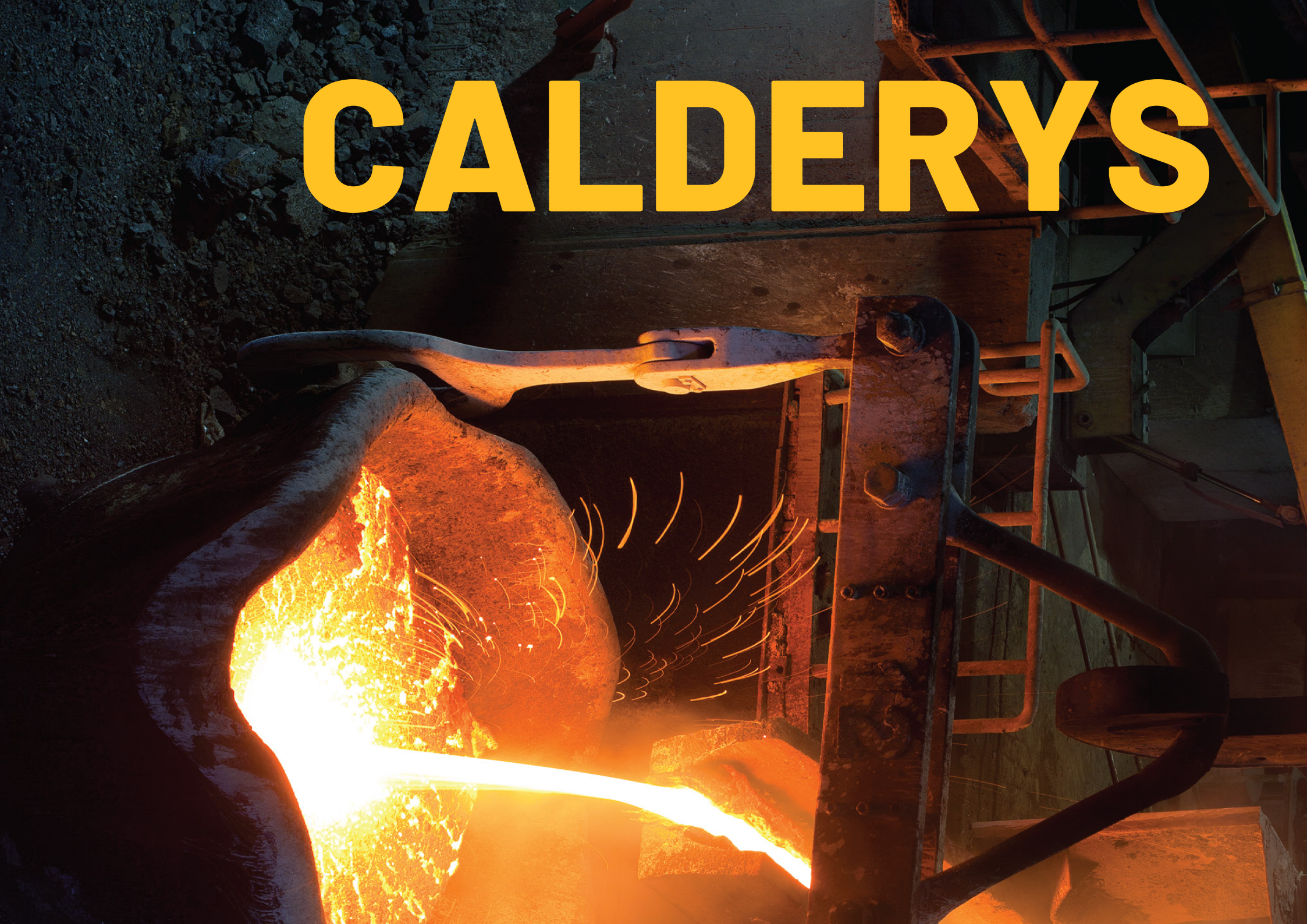
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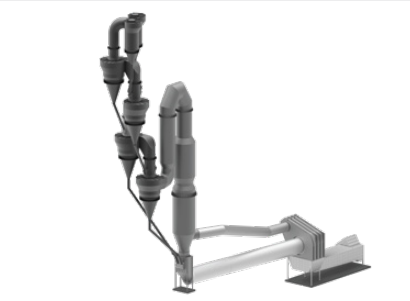
		Al_2O_3	SiO_2					
Castable								
CALDE® CAST GIBRAM	Bauxite	82.8	11.4	1600	2.9	5.0 - 6.0	2.91 (g/cm3)	General-purpose castable
CALDE® CAST LC 90	Bauxite/ Corrundum	89.0	7.0	1650	3.0	4.4 - 4.8	3.05 (g/cm3)	General-purpose castable
CALDE® CAST LF 47 A	Mullite	47.0	48.0	1500	2.2	6.1 - 6.7	2.30 (g/cm3)	General-purpose castable
CALDE® FLOW LB 80 A		80.0	15.0	1600	2.7	5.7 - 6.4	2.77 (g/cm3)	Abrasion resistance, Alkali resistance, Easy flow
CALDE® FLOW LS 62 IP	Silicon Carbide	25.0	12.0	1500	2.5	5.8 - 7.1	2.51 (g/cm3)	
CALDE® GUN MM 56 S5	Mullite	55.0	31.0	1500	2.1	added at the nozle	2.51 (g/cm3)	Cement
CALDE® GUN R 60 S5 IP		60.0	25.0	1600	1.9	added at the nozle	2.06 (g/cm3)	General-purpose castable
CALDE®SPRAY CAST LM74A 2CP	Mullite	72.0	24.0	1600	2.5	5.2 - 5.8	2.56 (g/cm3)	Spraycasting
Castable AF Cast SIC-20	Bauxite/ Andalusite	52.0	19.0	1500	2.4	5.1 - 5.6	2.41 (g/cm3)	Kiln with alternative fuel : for chemical/ alkali/ sulphate, chlorine attact areas,
Castable AF Cast SIC-30	Mullite	46.0	18.0	1500	2.4	5.2 - 5.7	2.44 (g/cm3)	other wear & build up areas
Castable Guncast C-1600	Bauxite	65.0	24.0	1600	2.2	added at the nozle	2.25 (g/cm3)	General-purpose castable
Castable Guncast C-1600 SIC	Corrundum	45.0	28.0	1550	2.1	added at the nozle	2.17 (g/cm3)	General-purpose castable
Castable RORAM GB SIC-B	Bauxite/ Sic	55.0	11.0	1500	2.4	5.7 - 6.3	2.51 (g/cm3)	Chemical attack, High wear areas
GREENCAST -80 ULCC IP		80.0	13.0	1705	2.7	4.6 - 5.5	2.80 (g/cm3)	High hot strength for resistance to hot load abrasion and hot metal erosion, (Reheat furnace hearths, Steel ladles, Iron ladles, Rotary Kiln, Desulphurizing lances, Electric furnace delta sections)
THOR® AZS-PT ADTECH® IP	Zirconia - Mullite	50.0	32.0	1538	2.7	5.5 - 6.3	2.73 (g/cm3)	Special Zirconia-Mullite Castable
Insulation								
CALDE® CAST MW 140 C/G	Lightweight chamotte	43.6	42.0	1400	1.4	25.0 - 31.0	1.46 (g/cm3)	General-purpose castable
GUNCAST IC-1300	Chamotte	41.0	37.0	1300	1.3	30.4 - 33.6	1.44 (g/cm3)	Gunning, Casting

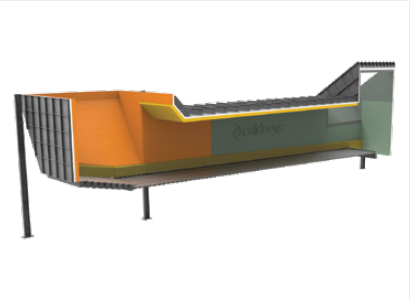
Burner pipe

Calciner

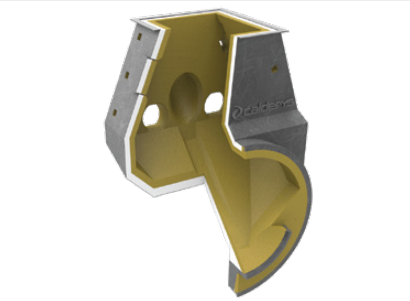
Damper



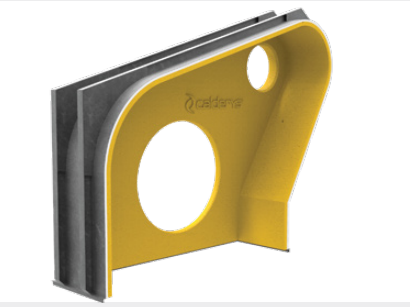
General view



Grate cooler

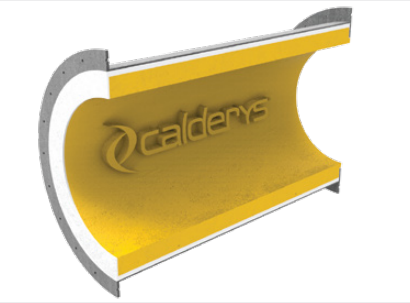


Inlet chamber



Kiln hood

Lower cyclones and gas ducts



Meal pipes

Nose ring

Rotary kiln

Tetriary air duct

Upper cyclones and gas ducts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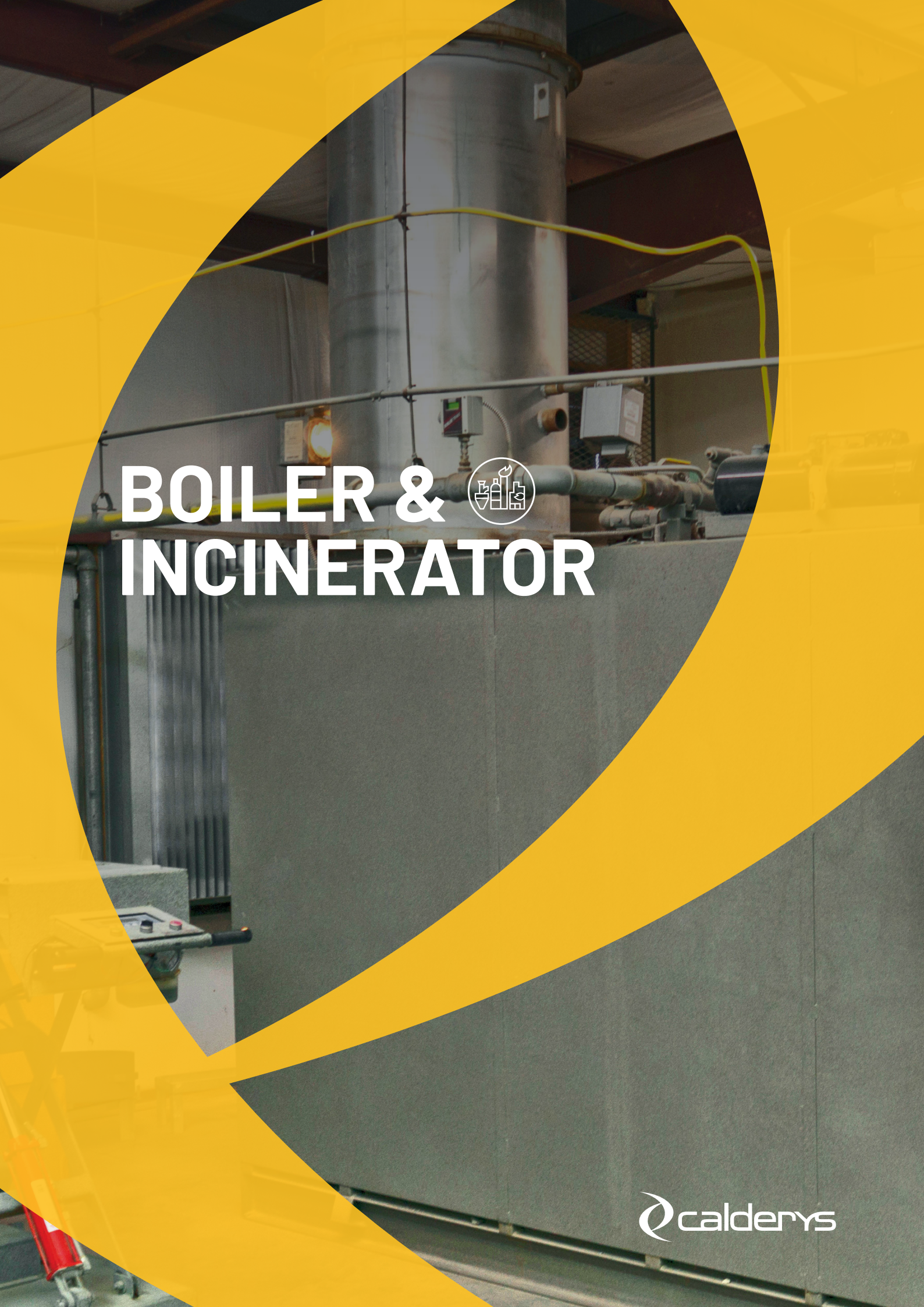

BOILER & INCINERATOR

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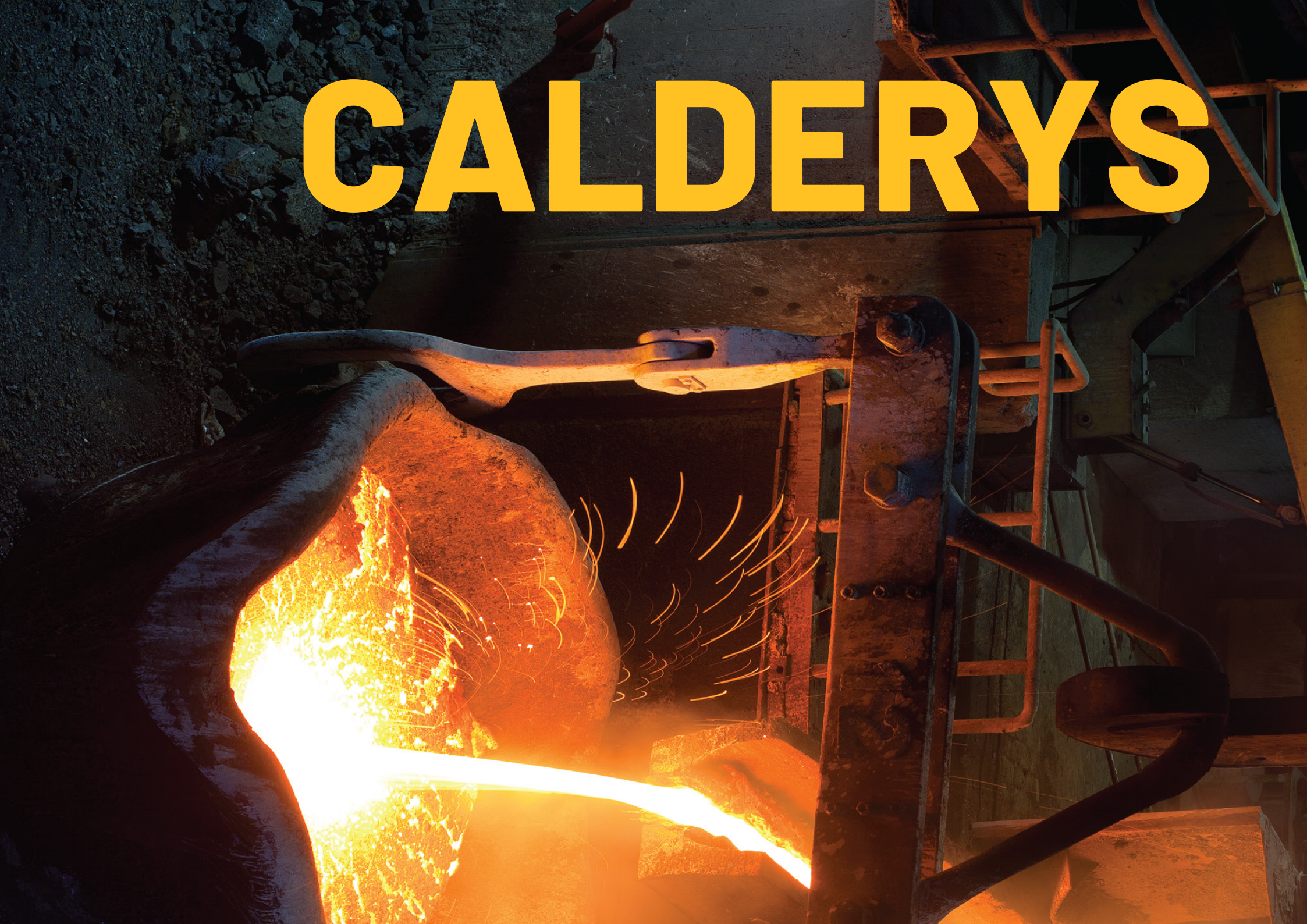
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		Al_2O_3	SiO_2					
Castable								
CALDE® CAST LF 47 A	Mullite	47.0	48.0	1500	2.2	6.1 - 6.7	2.30 (g/cm3)	General-purpose castable
CALDE® CAST LR 25 IP		25.0	65.0	1200	2.1	7.5 - 8.3	2.10 (g/cm3)	High alkali & acid resistance
CALDE® FLOW LF 63 A		62.0	29.0	1600	2.4	5.8 - 6.4	2.47 (g/cm3)	Abrasion resistance, Alkali resistance, Easy flow
CALDE® FLOW LM 74 A FD IP	Mullite	73.0	23.0	1600	2.6	5.1 -5.8	2.69 (g/cm3)	General, Alkali resistance, Easy flow
CALDE® FLOW LM 74 A IP	Mullite	74.0	21.0	1600	2.6	5.2 -5.8	2.69 (g/cm3)	General, Alkali resistance, Easy flow
CALDE® GUN MM 56 S5	Mullite	55.0	31.0	1500	2.1	added at the nozle	2.51 (g/cm3)	Cement
CALDE® SPRAYCAST LM 74 A 2CP	Mullite	72.0	24.0	1600	2.5	5.2 - 5.8	2.56 (g/cm3)	Spraycasting
Castable C-16	Bauxite	73.0	17.0	1600	2.4	7.2 - 7.9	2.52 (g/cm3)	General-purpose castable
EXPRESS®-30 PLUS IP		60.0	34.8	1650	2.3	7.5 - 9.0	2.37 (g/cm3)	High density and excellent abrasion resistance make it ideal for hot face linings in FCCU lines, cyclones, air heaters, aluminum and brass furnaces, rotary kilns, incinerators, boilers, and combustion chambers.
ULTRA-GREEN® 45 IP		49.0	45.0	1650	2.3	4.9 -5.5	2.35 (g/cm3)	High strength, low porosity, and excellent hot load and corrosion resistance. Ideal for original linings, repairs, precast shapes, iron, steel, and non-ferrous furnaces, cement kilns, boilers, and chemical processing
ULTRA-GREEN® 70 ABR PLUS IP		71.0	25.0	1705	2.6	4.5 -5.5	2.62 (g/cm3)	This material is dense and highly resistant to wear, making it perfect for lining hot surfaces. It's commonly used in cement rotary kilns, rotary kiln coolers, cyclones, furnace parts, iron ladles, reheating and annealing furnace hearths, forge furnaces, and burner blocks.
VERSAFLOW® 45 PLUS IP		45.5	48.0	1482	2.1	6.5 -7.5	2.19 (g/cm3)	This material is strong and resists wear, so it lasts longer. It's easy to install by casting or pumping. It keeps its shape well, so it doesn't crack easily. It's used in many industries like steel, mineral processing, chemical, and aluminum for parts of furnaces and other high-heat areas.
VERSAFLOW® 60 PLUS IP		60.2	34.2	1705	2.4	5.4 - 5.9	2.43 (g/cm3)	This material is very strong, heat-resistant, and easy to install by casting or pumping. It's used in many industries—like steel, aluminum, and ceramics—for furnace parts, kiln areas, and covers. It works well in high-heat zones like ladles, tundishes, kilns, and incinerators.
VERSAFLOW® 70 PLUS IP		71.5	22.8	1705	2.6	5.0 - 5.6	2.67 (g/cm3)	This material has excellent wear and heat resistance. It can be installed by vibration or conventional casting. It's used in foundries to replace bricks in

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		Al_2O_3	SiO_2					
								ladles and furnace decks, in aluminum furnace walls and roofs, in steel for ladle and tundish covers, and in rotary kilns and incinerators for various high-heat parts.
VERSAFLOW® THERMAX® PLUS IP		24.0	72.0	1316	2.0	6.3 -6.9	2.08 (g/cm3)	This material is tough, lighter, and keeps heat better than regular castables. It handles rapid temperature changes up to 1093°C and can be cast, poured, or pumped easily. It's used in petrochemical catalyst lines, power plant ash hoppers, and other places needing strong wear and heat shock resistance.
Insulation								
CALDE® CAST LW 121 C/G		40.0	40.0	1200	1.0	46.5 - 51.5	1.10 (g/cm3)	General-purpose castable
KAST-O-LITE® 20-45 G PLUS IP		30.0	42.0	1095	0.5	added at the nozle	0.48 (g/cm3)	Ultra-lightweight castable with low thermal conductivity and good strength; suitable for casting or gunning. Ideal for fast dry-outs, lightweight panels, flue and duct linings, monolithic linings, and as backup insulation
KAST-O-LITE® 23 LI PLUS IP		31.0	56.0	1260	0.8	47 - 55	0.86 (g/cm3)	Low-iron castable for reducing furnace conditions; suitable for casting or gunning. Ideal for flues, stacks, breechings, controlled atmosphere furnaces, petrochemical backups, catalytic reformers, and waste heat boilers.
LW -1300 PLUS IP		8.0	65.0	1315	1.2	30 - 40	1.25 (g/cm3)	Economical low-density lining for petrochemical heaters, reactors, ducts, and flues. Suitable as both backup and hot face refractory.

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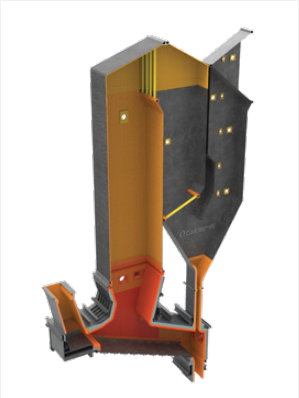
Circulating fluised bed boiler



Grate-fired boiler

PCF boiler

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- From material supply to various furnace construction works and overseas project assignments, we offer flexible solutions to meet all your company's requirements.

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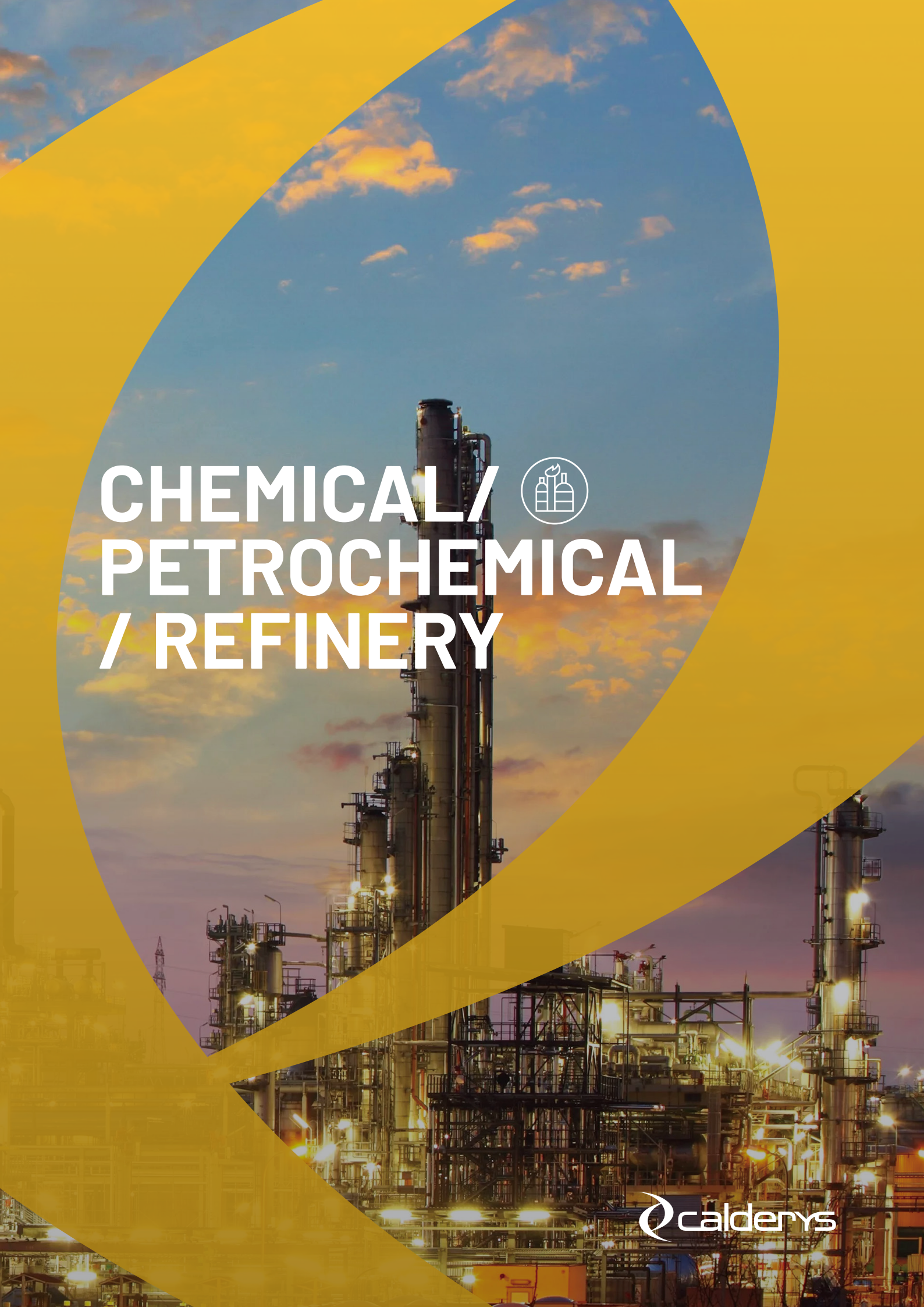

CHEMICAL/ PETROCHEMICAL / REFINERY

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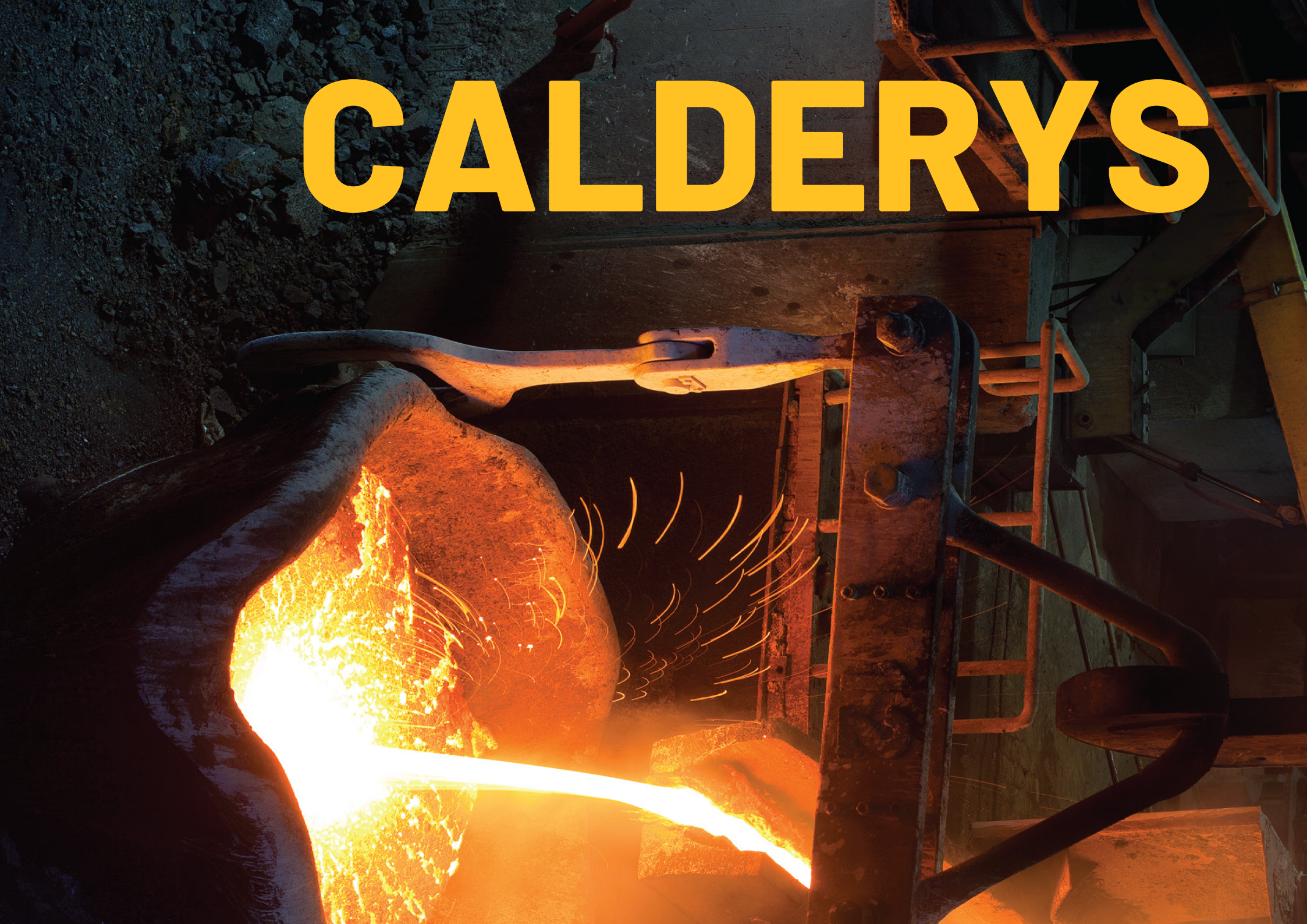
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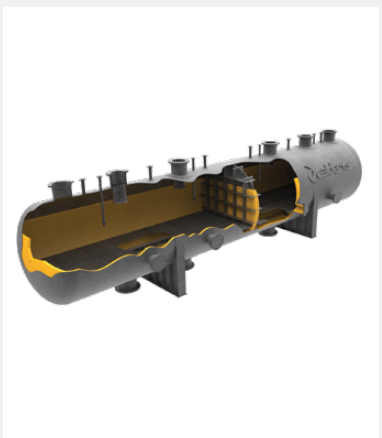
Castable								
CALDE® CAST C-15 IP		62.0	29.0	1500	2.2	9.5 - 10.5	2.24 (g/cm3)	General-purpose castable
CALDE® CAST LR 25 IP		25.0	65.0	1200	2.1	7.5 - 8.3	2.10 (g/cm3)	High alkali & acid resistance
CALDE® CAST LR 68 IP		68.0	22.0	1600	2.3	7.8 - 8.7	2.30 (g/cm3)	General-purpose castable
CALDE® FLOW LB 80 A		80.0	15.0	1600	2.7	5.7 - 6.4	2.77 (g/cm3)	Abrasion resistance, Alkali resistance, Easy flow
GUNCAST IP-95 S	Corrundum	94.0	0.0	1800	2.6	added at the nozle	2.60 (g/cm3)	Chimney flue
GREENCAST -80 ULCC IP		80.0	13.0	1705	2.7	4.6 - 5.5	2.80 (g/cm3)	High hot strength for resistance to hot load abrasion and hot metal erosion, (Reheat furnace hearths, Steel ladles, Iron ladles, Rotary Kiln, Desulphurizing lances, Electric furnace delta sections)
GREENCAST® 94 GR PLUS IP		92.0	0.1	1870	2.3	added at the nozle	2.56 (g/cm3)	High purity, Applications requiring a high temperature, chemical purity such as secondary reformers having high hydrogen atmospheres.
GREENCAST® 94 PLUS IP		93.0	0.1	1870	2.6	8.0 - 10.1	2.73 (g/cm3)	This material is strong and fine-grained, making it resistant to damage from dust, rubbing, and heavy impacts. It can handle very high temperatures, so it's good for use with hydrogen and in hot environments. It's used to line areas with fast-moving gases, grinding, or heat, like hydrogen lines, ammonia reformers, burner parts, boilers, and equipment for processing copper and iron.
HPV® 110 GUN MIX IP		46.0	37.0	1316	1.8	added at the nozle	1.97 (g/cm3)	Chemical Processing and refining-FCCU cylones and transfer lines: regenerator and reactor linings, Any application requiring high abrasion and low thermal conductivity.
HYDROCRETE PLUS IP		35.5	44.0	1205	1.9	12.0 -14.0	1.97 (g/cm3)	This material is easy to install on uneven furnace surfaces and saves time. It also keeps heat in better than regular fireclay bricks, This is used around furnace floors, in low-heat heaters and burners, as well as in boilers, furnace top covers, and stove linings
KS®-4V GR PLUS IP		47.0	39.0	1425	1.9	added at the nozle	1.90 (g/cm3)	Excellent gunability, High strength, negligible shrinkage
KS-4 ®V PLUS IP		46.0	39.0	1425	2.0	11.0 -14.0	2.08 (g/cm3)	Hydraulically bonded casting castable and good strength, Minimal shrinkage, even when used in large patches.
KS-4® GR PLUS IP		47.0	42.0	1400	1.9	added at the nozle	1.95 (g/cm3)	Good strength, Low rebound, good setting characteristics and ideal-moisture content, Excellent for large areas with relatively thin linings, Ideal as a general-purpose gunning castable
ON-LINE® 60G AR IP	54.0	39.0	1705	2.2	added at the nozle		2.19 (g/cm3)	This material sets quickly and can be dried fast, even right after setting. It resists alkali well, handles high temperatures, and can be applied using regular gunning methods.
ULTRA-GREEN® 70 ABR PLUS IP		71.0	25.0	1705	2.6	4.5 -5.5	2.62 (g/cm3)	This material is dense and highly resistant to wear, making it perfect for lining hot surfaces. It's commonly used in cement rotary kilns, rotary kiln coolers, cyclones, furnace parts, iron ladles, reheating and annealing furnace hearths, forge furnaces, and burner blocks.

Product name	Main component	Chemical composition		Maximum Operating temperature (°C)	Construction requirements (t/m^3)	Standard water addition volume (%)	Bulk density after drying at 110°C	Application areas, features
		Al_2O_3	SiO_2					
VERSAFLOW® 55/ AR ADTECH® IP		55.0	39.0	1650	2.3	5.5 - 6.2	2.45 (g/cm3)	This material resists alkali very well and stays strong at high temperatures (1093°C). It can withstand extreme heat and is easy to shape by casting, pouring, or pumping with a little water adjustment, This is used in aluminum furnace walls and roofs, diecast furnaces, steel ladle and tundish covers, cement preheaters, and incinerator burners and kilns
Insulation								
CALDE® CAST LW 121 C/G		40.0	40.0	1200	1.0	46.5 - 51.5	1.10 (g/cm3)	General-purpose castable
CALDE® CAST LW 134 CO C/G	Chamotte, Perlite	44.0	43.0	1350	1.1	40.0 - 46.0	1.17 (g/cm3)	General-purpose castable
GREENLITE® 45 L PLUS IP		41.0	41.0	1370	1.2	23.0 -27.0	1.29 (g/cm3)	This material has GREENLITE® AGGREGATE, which makes it strong and a good insulator, Backup linings in reheat furnace floors and annealing furnace cartops, Fired oil heater stacks, Carbon monoxide boiler duct linings, Olefins cracking furnace stacks, Boilers and incinerator backup linings
GREENLITE® 45-L GR ON-LINE® IP		38.0	46.0	1370	1.3	added at the nozle	1.23 (g/cm3)	Design to set quickly, can be dried out rapidly, Excellent gunning characteristics, Extraordinary strength and features & excellent insulating properties, FCCU, Fluid coking units, Any Industrial lining requiring low densities and high strengths
KAST-O-LITE® 20-45 G PLUS IP		30.0	42.0	1095	0.5	added at the nozle	0.48 (g/cm3)	Ultra-lightweight castable with low thermal conductivity and good strength; suitable for casting or gunning. Ideal for fast dry-outs, lightweight panels, flue and duct linings, monolithic linings, and as backup insulation
KAST-O-LITE® 30 LI G PLUS IP	55.0	36.0	1650	1.4	added at the nozle		1.48 (g/cm3)	Lightweight with moderate density and excellent strengths, Low Iron, low thermal conductivity, and low rebound, This material is used in furnace stacks, furnace doors, and heaters. It's also used as a backup lining in reheat furnaces, sulfur recovery units, and catalytic reformers.
LW® 124 PLUS IP		27.0	46.0	1205	1.1	40.0 - 50.0	1.15 (g/cm3)	Designed to give an economic low density lining, Whilst primarily designed for Petrochemical applications such as lining for Heaters and Reactors, Ducts and Flues it is equally suitable both as a back up or hot face refractory

FCC units

Primary reformer

Secondary reformer



SRU - reactor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