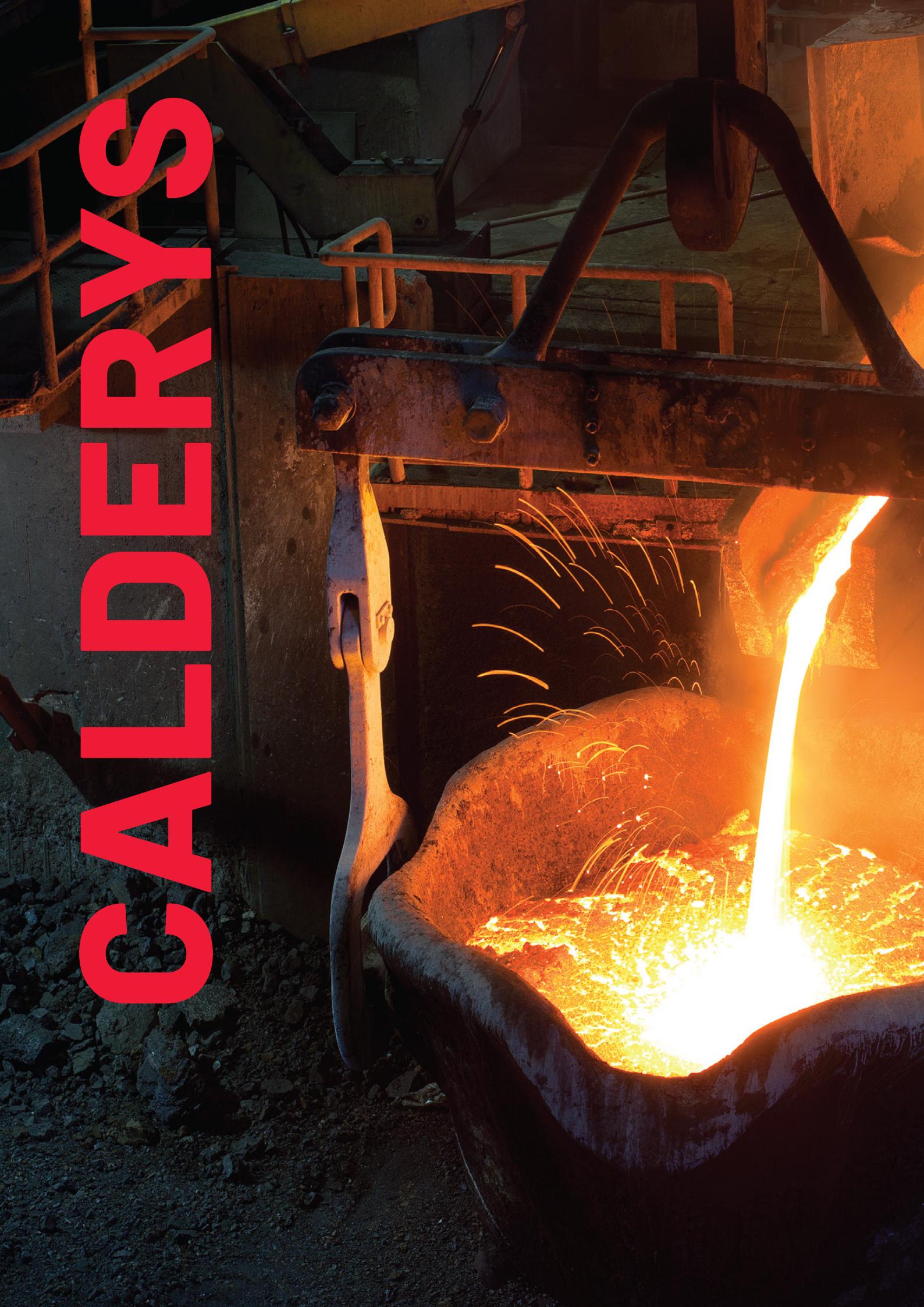




# IRON & STEEL

 calderys

**SAUDER  
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CALDER**





Calderys is a leading global provider for industries operating in high temperature conditions. We specialize in thermal protection for industrial equipment with a wide range of refractory products, and advanced solutions to enhance steel casting, metallurgical fluxes and molding processes.

With a presence in more than 30 countries on the 5 continents and a strong footprint in the Americas through the brand HWI (HarbisonWalker International), Calderys' international network of experts ensures an end-to-end offer with tailored services.

Drawing on over 150 years of experience, we are constantly developing innovative products and techniques, optimizing costs and performance, combining world-class Research & Development and technical experts, as well as responsive supply chain and sales departments.

Our global structure allows us to design the customized solutions of today while anticipating the industries' needs of tomorrow.

Calderys pays particular attention to industry's impact on the environment and has a sustainability program articulated around three pillars: supporting our customers in their energy transition needs, improving our environmental footprint and being committed to people and local communities.

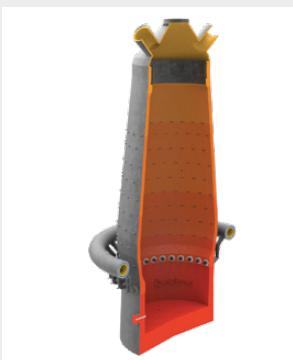
Health and safety are an integral part of how we do business, and our activities require the highest level of professionalism to carry out our projects. The same attention to detail that helps us provide personalized products and solutions is also applied to our rigorous health and safety criteria — applicable to both our own employees as well as subcontractors and temporary workers.

Product name	Main component	Chemical composition		Maximum operating temperature (°C)	Construction requirements (t/m³)	Standard water addition volume(%)	Bulk density after drying at 110°C	Application areas / Features
		Al₂O₃	SiO₂					
<b>Castable</b>								
ALKON® CAST LB 85	Bauxite	81.7	8.3	1300	2.9	5.0 -6.0	2.9(g/cm³)	General-purpose castable
CALDE® AL CAST LB 85 IP	Bauxite	82.0	10.0	1500	2.7	4.8 -5.4	2.73(g/cm³)	for aluminum contact
CALDE® CAST 1560	Andalusite	59.0	36.0	1650	2.5	6.4 -7.6	2.45(g/cm³)	General-purpose castable
CALDE® CAST LB 78	Bauxite	77.0	14.0	1600	2.6	4.8 -5.5	2.60(g/cm³)	High Abrasion resistance
CALDE® CAST LB 85	Bauxite	83.0	10.0	1650	2.7	4.6 -5.15	2.75(g/cm³)	High Abrasion resistance
CALDE® CAST LR 68 IP		68.0	22.0	1600	2.3	7.8 -8.7	2.30(g/cm³)	General-purpose castable
Castable C-16 BRS	Bauxite	67.0	24.0	1650	2.5	6.2 -6.8	2.55(g/cm³)	High temperature & thermal shock resistance
Castable Guncast C-1600 EX	Corundum	54.0	38.0	1550	2.1	added at the nozzle	2.14(g/cm³)	General-purpose castable
Castable RORAM-RB	Bauxite/ Mullite	72.0	21.0	1600	2.5	6.0 -7.0	2.50(g/cm³)	General-purpose castable
GREENKLEEN® 60 PLUS IP		59.0	35.0	1649	2.4	5.3 -6	2.56(g/cm³)	This material is very tough and can handle wear, sudden temperature changes, and contact with molten aluminum. It's used in many high-heat areas like aluminum furnaces (hearts, ramps, sidewalls, troughs, ladles, and crucibles), FCCU lines, incinerators, burner blocks, forge furnace supports, and cement coolers
MIZZOU® CASTABLE PLUS IP		59.0	35.0	1650	2.3	8.0 -10.0	2.29(g/cm³)	This material resists many slags well. It expands instead of shrinking when heated and doesn't easily crack or peel. It's also easy to install, this is use in Incinerators, Boilers, Burner Blocks, Aluminum furnace upper sidewalls and roofs, Forge furnaces and foundry ladles
ULTRA-GREEN® 57A IP		60.0	37.0	1650	2.5	4.8 -5.6	2.61(g/cm³)	Outstanding thermal shock resistance in applications having extreme cyclic temperature conditions, High hot strength, Low porosity and high density superior or equal to fired brick of similar composition
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.
<b>Insulation</b>								
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
GUNCAST IC-1300	Chamotte	41.0	37.0	1300	1.3	added at the nozzle	1.44(g/cm³)	Gunning, Casting

Product name	Main component	Chemical composition		Maximum operating temperature (°C)	Construction requirements (t/m³)	Standard water addition volume(%)	Bulk density after drying at 110°C (g/cm³)	Application areas / Features
		Al₂O₃	SiO₂					
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.

#### Mortar

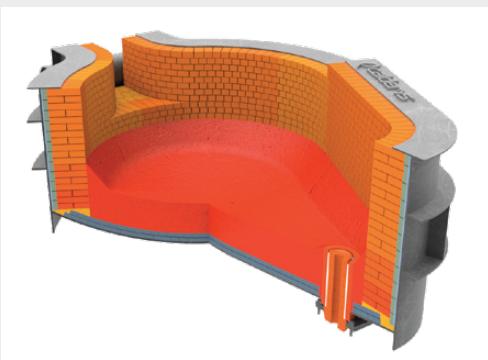
Mortar M-36	Chamotte	54.0	38.0	-	-	33.0 - 37.0	-	Fire clay brick SK-36
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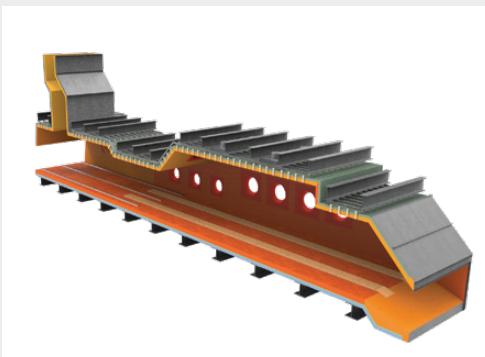
Blast furnace



Bogie furnace



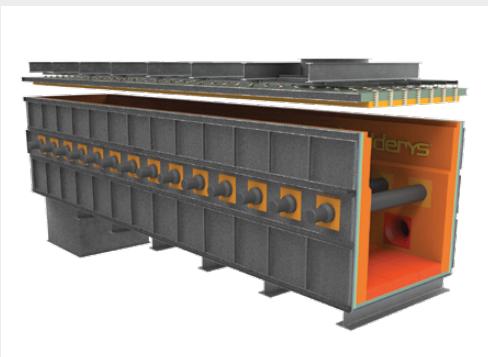
EAF



Pusher furnace



RH degasser



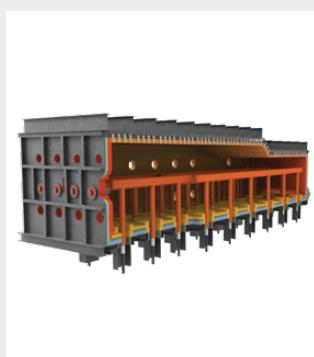
Roller furnace



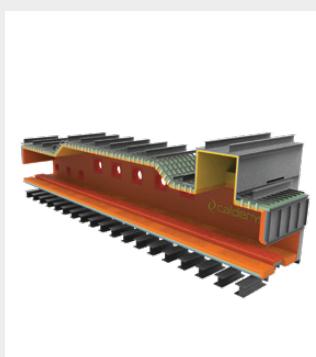
Steel ladle



Tundish



Walking beam furnace



Walking hearth furnace



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