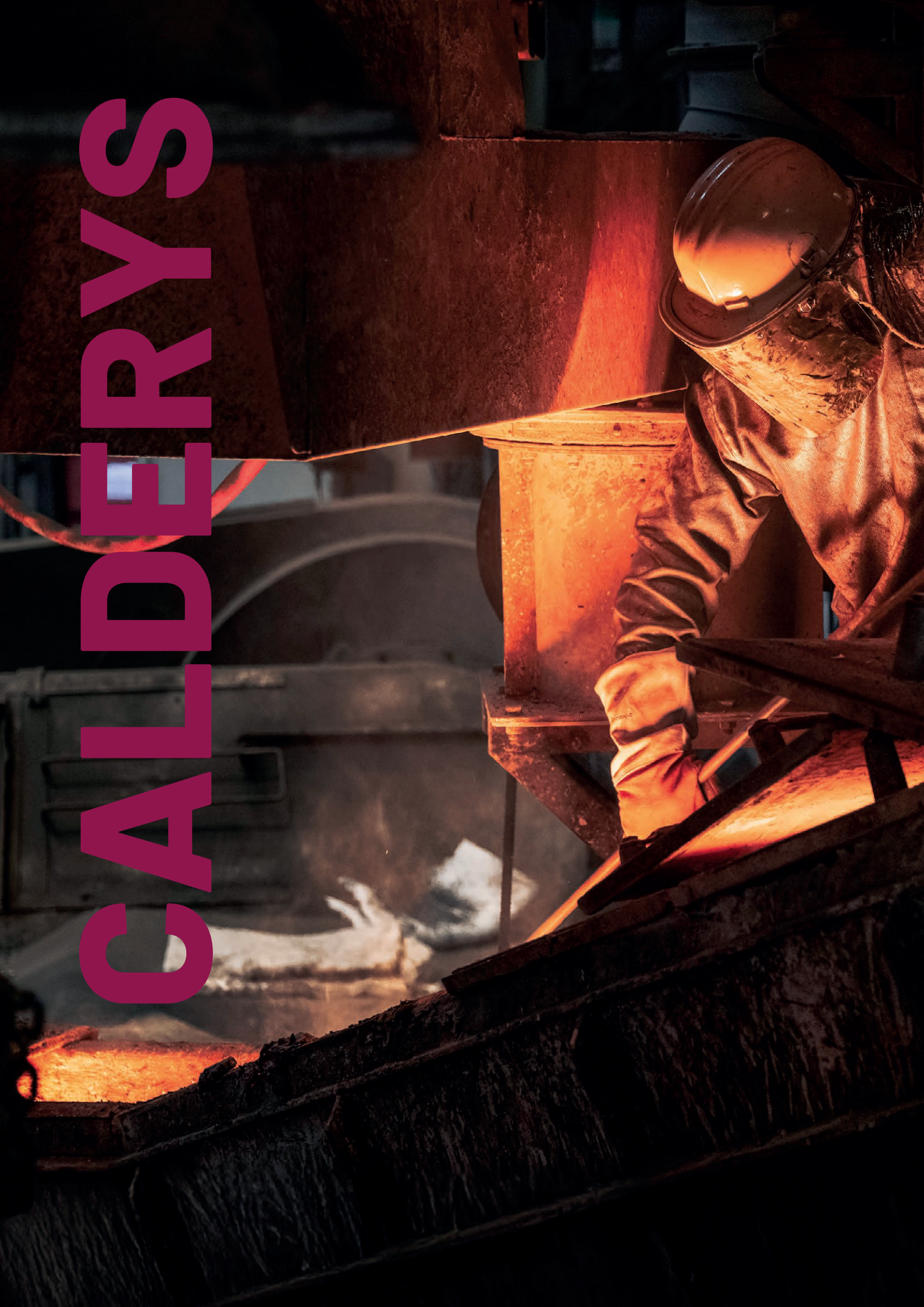


# STEEL FOUNDRY





# CALDERYS







Picture © Olivier Lattuga - Duyck

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.

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Product name	Chemical composition			Maximum operating temperature (°C)	Application areas, features
	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	MgO		
Hot-faced lining material					
TORAM AS-5	-	94.0	5.0	1750	Neutral ramming material
TORAM AS-10	-	89.0	10.0	1750	Neutral ramming material
TORAM AS-15	-	84.0	15.0	1750	Neutral ramming material
TORAM AS-20	-	79.0	20.0	1750	Neutral ramming material
TORAM M20N	-	79.5	20.0	1750	Neutral ramming material
SFS MIX 1093	0.1	92.5	6.2	1750	Neutral ramming material
CALDE® MIX SC 84 M18	-	83.9	15.2	1800	Neutral ramming
TORAM B-31	-	26.0	72.0	1800	Basic ramming material
TORAM MA-23	-	18.0	79.0	1900	Basic ramming material
TORAM M-2	1.0	-	98.0	1900	Preformed alkaline ramming material
Furnace lining repair materials, furnace roof and tap hole formation, coating materials					
CALDE® PATCH PT 88 U	6.0	88.0	-	1650	High-alumina patching compound
CALDE® PATCH PB 82 U	9.0	82.0	-	1600	Patching compound
CJ-PATCH85	12.0	83.0	-	1700	Phosphate-free descaling agent
TAIMAG PATCH S 87 F	7.0	-	86.9	1750	Coating material for pots
CALDE® SHIELD N, B	-	-	-	1600	Coating material for sintered layer reinforcement
Furnace lid, pot					
CALDE® CAST LT 98 L	0.1	97.9	-	1850	High-alumina castable
TCS-EX185KB	0.5	98.0	-	1850	High-alumina castable
TCS-M85C	5.0 (C)		85.0	-	Magnesia carbon castable
TCS-AM5	1.1	93.0	4.8	1800	Alumina-magnesia castable
Coil cement					
TOCAST-18F	0.1	96.0	-	1800	For pouring
TOCAST-T18	2.0	94.0	-	1800	For trowel application
Mica insulation					
504-48-34	1m×20m×0.4mm			900	Mycaroll
MICA 240GP	1m×10m×2.4mm			900	Mica Bio-Degradable Heat-Resistant Fibre Paper
Detection Net Mycacore	1m×25m×0.8m			900	Mica-Roll Leak Detection Net
504T	1m×2.4m×0.9mm			900	Leak Detection Mesh Mica Sheet
Isoprene1000	1m×1m×3mm, 4mm			1000	Biologically degradable heat-resistant fibreboard
Furnace construction equipment					
Jolter-type furnace-building machine	Automatic furnace lining machine for furnace walls				
BOP furnace-building machine	Automatic furnace bottom lining machine				
Bosch-type electric vibrator	Hand-held vibrator for furnace bottom and furnace walls				

The figures stated are representative values and are not guaranteed. They are subject to change without notice.  
A wide range of other refractories are also available; for further details, please contact our Sales and Technical Department.





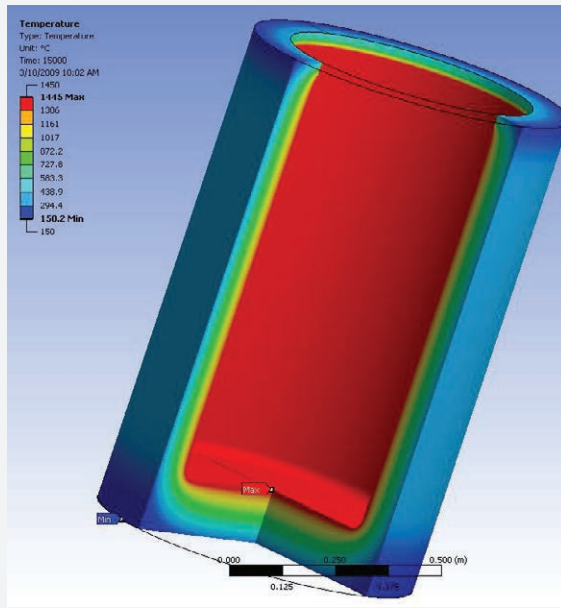
Amorphous material



Operational survey



CALDE® SHIELD



Heat calculation



Standardised product



Pot coating material TAIMAG PATCH S 87 F



Jolter-type furnace-building machine

Calderys offers innovative technologies and numerous products based on its worldwide track record and extensive experience. From material supply to furnace construction projects of all sizes, we offer flexible solutions to meet all your requirements.



[www.calderys.com](http://www.calderys.com)



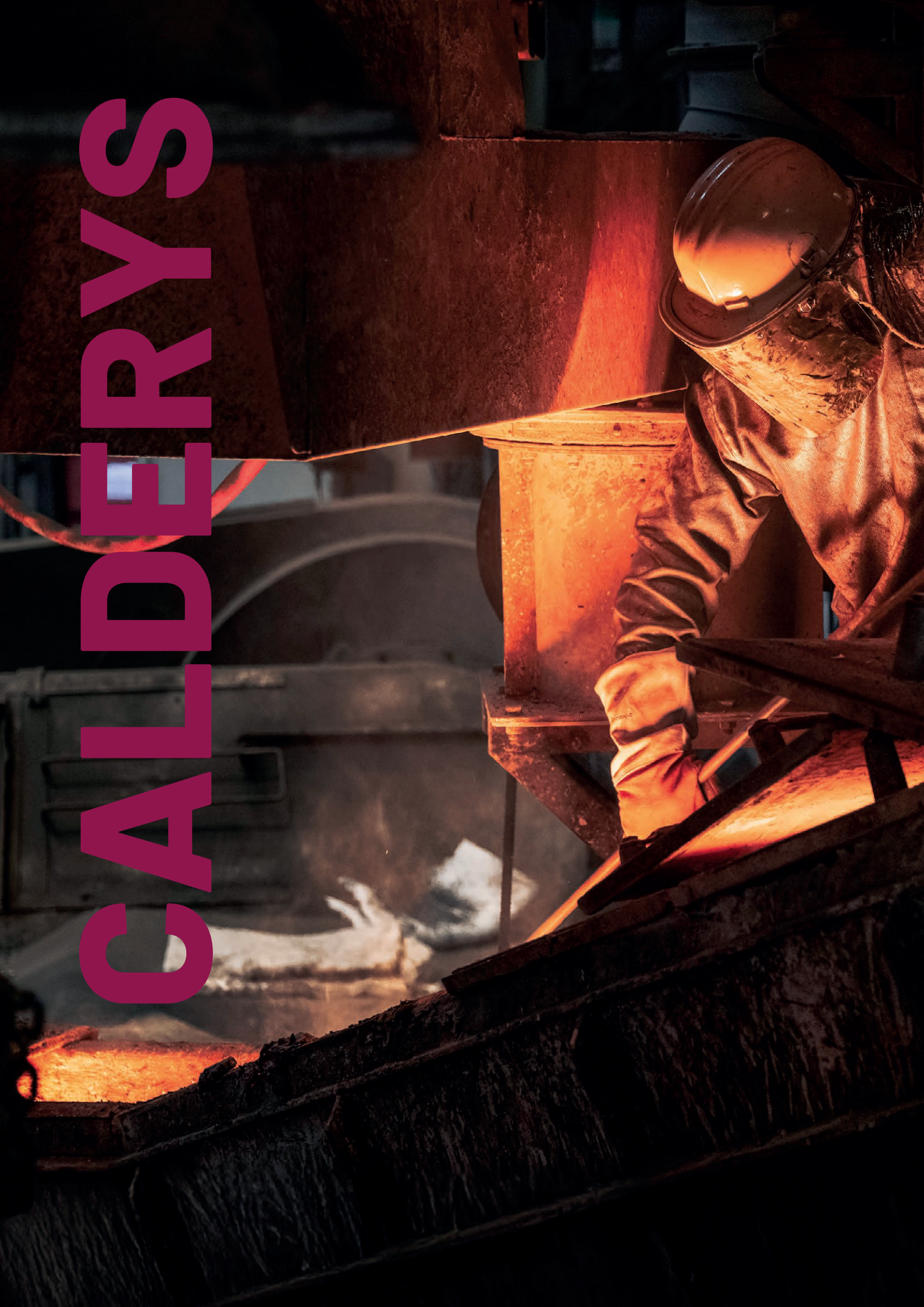


The background of the entire page is a dark, industrial scene featuring molten metal glowing with orange and red light. In the foreground, there are various metal structures and pipes. A large, semi-transparent purple circle is overlaid on the left side of the image, framing the title text.

# NON FERROUS FOUNDRY



# CALDERYS





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Product name	Chemical composition			Maximum operating temperature	Application areas, features
	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	MgO		
Dry-ramming timber					
SILICA MIX 5, 7	98 - 99	-	-	1700	Silica-based Copper alloys
SILICA MIX Q	98 - 99	-	-	1680	Silica-based Copper alloys
SILICA MIX MS B	96.9	1.4	-	1500	Silica-based Copper alloys
SILICA MIX B Cu 7	90.0	6.7(SiC)		1580	Silica-based Copper alloys
CALDE® MIX BC 85 S	4.0	86.0	5.0 (SiC)	1600	Alumina-based Copper alloys
SFS-1075C	27.0	64.0	5.0 (SiC)	1500	Alumina-based Copper Alloy Standard Shapes
Castable					
CALDE® CAST LT 98 L	0.1	97.9	-	1850	Upper case of groove-type furnace Gutter Ladle
CALDE® CAST LA 50 SZ	26.3	49.8	-	1650	Upper case of groove-type furnace Gutter Ladle
CALDE® FLOW AZ	-	58.5	-	1650	Gutter-catching pan
CALDE® CAST M 32	15.0	76.1	-	1600	Gutter-catching pan
TOCAST-16K	28.0	63.0	-	1600	Gutter-catching pan
ALKON® CAST LB 85	8.3	81.7	-	1300	Gutter-catching pan
TCS-EX145	46.0	48.0	-	1500	Gutter Pot lid, pot
Patching material, coating material					
CALDE® PATCH PT 88 U	6.0	88.0	-	1650	Patching compound for repairs
CALDE® PATCH PB 82 U	9.0	82.0	-	1600	Patching compound for repairs
CALDE® PATCH HQ 22 U	95.5	2.7	-	1700	Patching compound for repairs
CALDE® PATCH AQHP 7004	12.0	76.0	-	1600	Patching compound for repairs
TAIMAG PATCH S 87 F	7.0	-	86.9	1750	Slag countermeasure coating material
TOBOND-203Z	70.1 (ZrO2)			-	Water-resistant coating material
Coil cement					
COILCEMENT A	17.0	71.0	-	1700	Coil cement
Mica insulation					
COILCEMENT A	17.0	71.0	-	1700	Coil cement
MICA INSULATION					
COILCEMENT A	17.0	71.0	-	1700	Coil cement
Mica insulation					
504-48-34	1m×20m×0.4mm			900	Mycaroll
MICA 240GP	1m×10m×2.4mm			900	Mica Bio-soluble Heat-resistant Fibre Paper
DETECTION NET MYCACORE	1m×25m×0.8mm			900	Roll-form product of Mica for hot water leakage detection network
504T	1m×2.4m×0.9mm			900	Leak Detection Mesh Mica Sheet Products
ISOPRENE1000	1m×1m×3mm, 4mm			1000	Biologically degradable heat-resistant fibreboard
Furnace construction equipment					
JOLTER-TYPE FURNACE-BUILDING MACHINE		Automatic furnace lining machine for furnace walls			
BOP FURNACE-BUILDING MACHINE		Automatic furnace lining machine for furnace walls			
BOSCH-TYPE ELECTRIC VIBRATOR		Hand-held vibrator for furnace bottom and furnace walls			

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- Additionally, we offer a wide range of refractories for crucibles and groove-type furnaces. Please contact our Sales Engineering Department for further details.

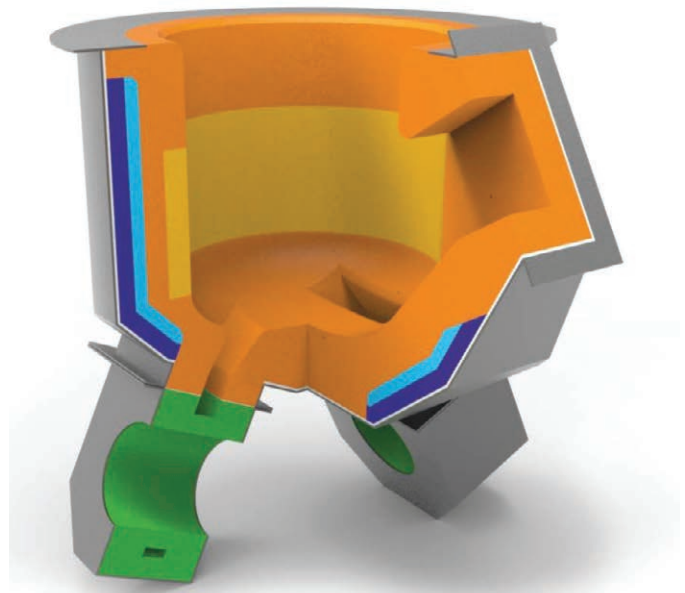


## For melting furnaces and holding furnaces

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Crucible induction furnace



Trough furnace



## For ancillary equipment

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- Calderys provides innovative technologies and numerous products based on its worldwide track record and extensive experience.
- From material supply to furnace construction projects of all sizes, we are able to flexibly accommodate all your requirements.



Picture © Olivier Lattuga - Duyck



[www.calderys.com](http://www.calderys.com)

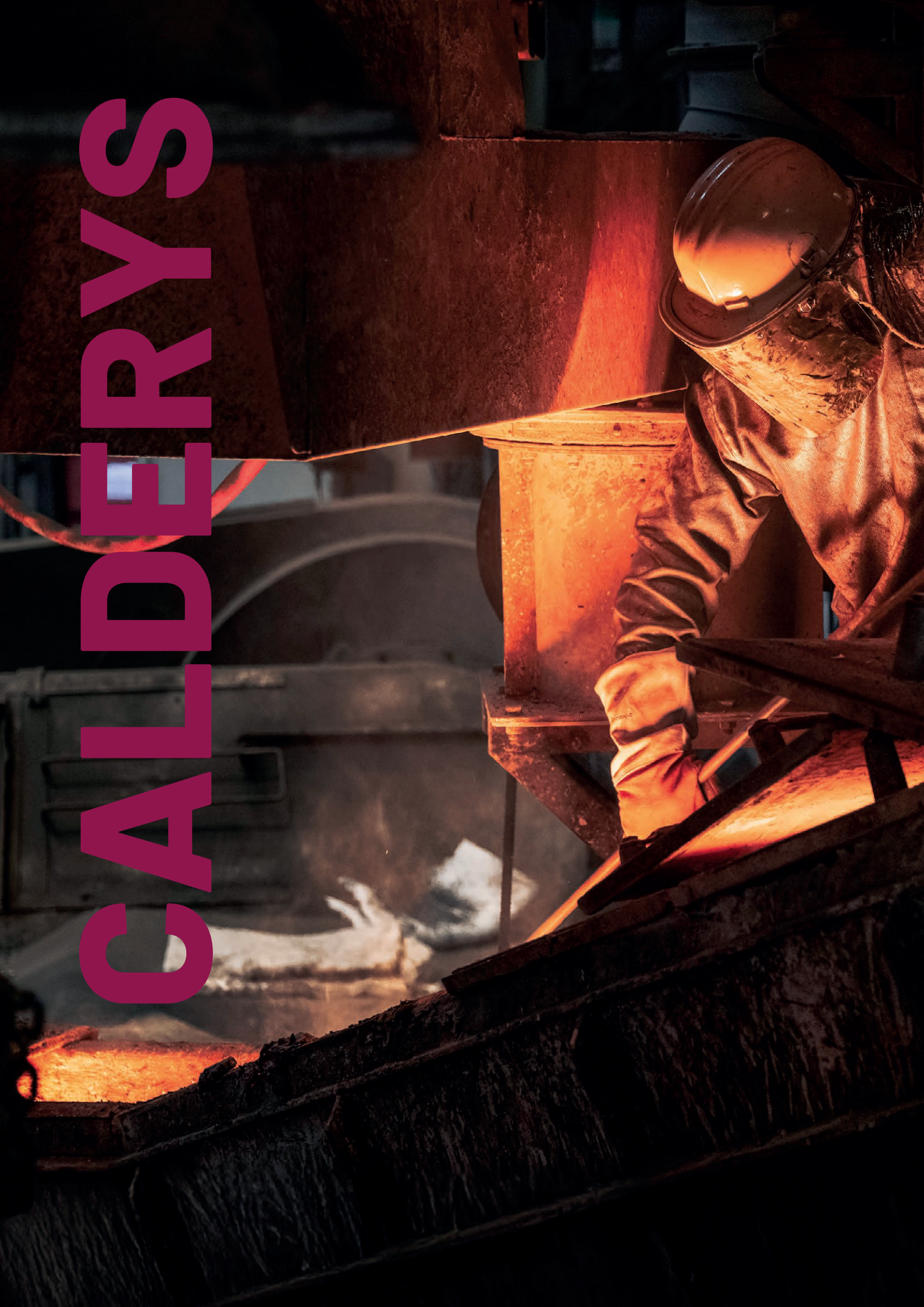


# FERROUS FOUNDRY





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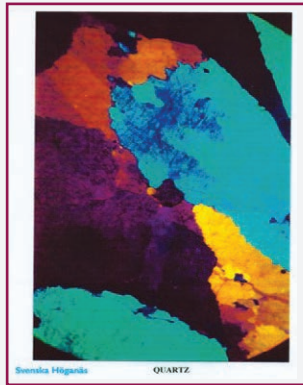
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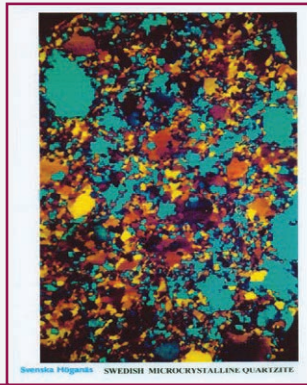


Product name	Chemical composition			Maximum operating temperature	Application areas, features
	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	MgO		
Hot-faced lining material					
SILICA MIX 5, 7	98 – 99	–	–	1700	Cast iron
SILICA MIX Q	98 – 99	–	–	1680	Cast iron Nirezist Carbon cast steel
SFS SILICA	98 – 99	–	–	1700	Cast iron Nirezist Carbon cast steel
CALDE® QDSD 9476	97.8	–	–	1500	Cast iron (furnace top)
TORAM #1030	98.5	–	–	1600	Cast iron Nirezist Carbon cast steel
TORAM SZ	92 – 94	–	–	1650	ZrO <sub>2</sub> containing
CALDE® DVM 70, 54	98 – 99	–	–	1680	Cast iron Nirezist Carbon cast steel
CALDE® MIX SA 68 S	28.6	67.5	–	1670	Andalusite-based ramming material
SILICA MIX V	98 – 99	–	–	1580	Cast iron Nirezist Carbon cast steel
STANDARDISED PRODUCT		Adjustable as required			Crucible sleeve spout
Repair material, furnace top, molten metal outlet					
CALDE® PLAST P 85	8.0	84.0	–	1650	Plastic material Furnace top Formation of discharge port
CALDE® PATCH HQ 22 U	95.5	2.7	–	1700	Silica-based patching compound Furnace wall repair
CALDE® PATCH PB 82 U	9.0	82.0	–	1600	Patching material Furnace wall Furnace roof repair
CALDE® PATCH AQHP 7004	12.0	76.0	–	1600	Patching material Furnace wall Furnace roof repair
Furnace lid, pot					
TOCAST-16K	28.0	63.0	–	1600	Castable Good workability
CALDE® CAST M 32	15.0	76.1	–	1600	Castable High Strength
CALDE® CAST 1560	36.0	59.0	–	1650	Castable Heat shock resistance
CALDE® CAST NB 82 QD	13.5	82.0	–	1650	Castable No Cement
CALDE® CAST LT 98 L	0.1	97.9	–	1850	Castable
TAICAST LB 60 SA	24.5	60.8	–	1600	Castable, SiC contained
CALDE® MIX FLASH A 55	37.5	55.5	–	1650	Ramming material for hot pots Simple installation Thermal insulation
CALDE® FLOW LM 74 A	25.1	71.9	–	1750	Castable High strength Thermal shock resistance
Coil cement					
COILCEMENT A	17.0	71.0	–	1700	Suitable for pouring Suitable for trowel application
Special products					
TAIMAG PATCH S 87 F	7.0	–	86.9	1750	Coating material for ladles and electric furnaces
CALDE® SOL CAST B 86 G10	10.5	86.0	–	1650	Sol-based castable, rapid-setting
CALDE® SHIELD A	75.0	1.5	–	1600	Former coating material for gas countermeasures
Mica, insulation material					
504-48-34	1m×20m×0.4mm			900	Mycaroll
MICA 240GP	1m×10m×2.4mm			900	Mica Bio-Degradable Heat-Resistant Fibre Paper
DETECTION NET MYCACORE	1m×25m×0.8mm			900	Roll-form product of Mica for hot water leakage detection network
504T	1m×2.4m×0.9mm			900	Leak Detection Mesh Mica Sheet Products
COMBI ALU	1m×12.5m×2.9mm			660	Zinc and Carbon Gas Countermeasure Mica
ISOPRENE1000	1m×1m×3mm, 4mm			1000	Biologically degradable heat-resistant fibreboard
Furnace construction equipment					
Jolter-type furnace- building machine	Furnace wall pin-alignment type bricklaying machine (high impact force)			Automatic Adjustment Type Furnace Lining Machine (Low Impact Force)	
BOP furnace-building machine	Automatic furnace bottom lining machine				
Bosch-type electric vibrator	Hand-held vibrator for furnace bottom and furnace walls				

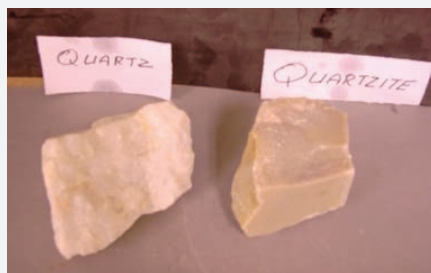
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- Other products include a wide range of refractories for crucibles and groove-type furnaces. Please contact our Sales Engineering Department for further details.



(QUARTZ)  
Crystal size: 0.5-1mm



Quartzite (Dalsland - QUARTZITE)  
Crystal size: 0.02-0.05mm



1500°C x 10 h



## TAIMAG PATCH S 87 F



- ▶ Slag adhesion suppression
- ▶ Reduction in dismantling and repair man-hours
- ▶ Protection of refractory base material
- ▶ Odourless

## CALDE® MIX FLASH A 55



- ▶ The heat retention properties of a hot pot
- ▶ Quick operation
- ▶ Specialised furnace-building jigs, no technical expertise required
- ▶ High corrosion resistance to molten metal and slag
- ▶ Boron, a sintering aid, is 0%!!

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Picture © Olivier Lattuga - Duyck



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