

Refractories for Iron & Steel

Products applications

Feuerfestmaterialien für Eisen und Stahl

Produktanwendungen

linco baxo group of companies

Refrattari per Siderurgia

Applicazione prodotti



Refractories

www.lincobaxo.com



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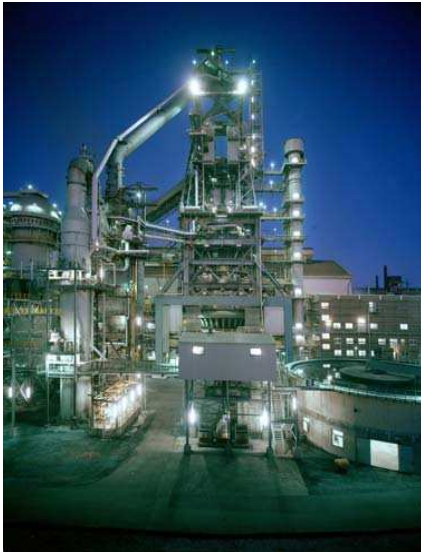
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FEUERFESTMATERIALEN ÜBERSICHT

Refractories based on alumina, silicon carbide, zircon, chromite, magnesite
 FF-Materialen basierend auf Tonerde, Siliziumkarbid, Zirkon, Chrom, Magnesit
 Refrattari a base di allumina, carburo di silicio, zirconio, cromite, magnesite

BRAND NAME HANDELSNAME NOME	DESCRIPTION BESCHREIBUNG DESCRIZIONE	MAIN ELEMENT HAUPTKOMPONENTE ELEMENTO PRINCIPALE
LICOFEST	Standard dense castables Dichte Standard Feuerbetone	Alumina / SiC/ZrO ₂
LINAX - KEROMIX KEROFIX - KEROGUN	Service castables for trowelling, gunning and universal applications Dichte Reparatur und Anwurfmassen	Alumina / SiC/ZrO ₂
LICOFEST L - FL	Light / Medium weight castables Feuerleichtbetone	Alumina
LICOFEST PL	Low cement thixotropic castables (LCC) Zementarme thixotrope Feuerbetone (LCC)	Alumina / SiC / ZrO ₂
BAXOVIBRO	Thixotropic specialties (ULC-FCC) Spezielle dichte thixotrope Feuerbetone (ULC-FCC)	Alumina / SiC / ZrO ₂
KEROVIB	Thixotropic mixes (ULC) Thixotrope Massen (ULC)	Alumina / SiC / ZrO ₂
LICOTON	Ramming mixes Halbplastische Stampfmassen	Alumina / SiC / ZrO ₂
LICO-CLAY	Plastic mouldables Plastische Stampfmassen	Alumina
BAXOGUN	Gunning mouldables Plastische Spritzmassen	Alumina / SiC / ZrO ₂
KEROFLOW	Self-flowing mixes Selbstfließende Massen	Alumina / SiC / ZrO ₂
KEROLAN	Vibratable dry mixes Trockenvibrationsmassen	Alumina / SiC / MgO
KEROGUN M - KEROSEAL	Spraying, gunning and service MgO mixes Spritz-, Sprüh- und Reparaturmassen auf Magnesitbasis	MgO
BAXOQUICK	Sliding gate filler sands Schieberfüllsande	Cr ₂ O ₃ / SiO ₂
MAREF	Standard bricks and shapes Steine normal-und Sonderformate	Alumina / SiC / ZrO ₂ / MgO
LICOBLOCK	Phos-bonded shapes and blocks Fertigbauteile und Blöcke phosphatgebunden	Alumina
LINCO BAXO	Precast shapes and blocks Fertigbauteile und Blöcke	Alumina / SiC / ZrO ₂
KERSKID	Wear resistant fused cast blocks Abriebfeste schmelzgegossene Blöcke	Alumina / ZrO ₂
ISOM	Insulating and light weight firebricks Isolier und Feuerleichtsteine	Alumina / Silica
LM	Ceramic fibres Keramikfaserprodukte	Alumina / ZrO ₂
LM ECO	Soluble fibres Ökologische Keramikfaserprodukte	
SILTHERM	Calcium silicate Kalziumsilikat	
PARGAS - BASALAN	Mineral wool Mineralwolle	
	Metallic anchors/melt extract steel fibres Metallanker/Stahlnadeln	AlSi 304, 310, 430, 446, Inconel
LBS textiles	Heat-resistant textiles Hitzebeständige Textilien	
	Equipment for installations Montagehilfsmittel	
CUSTOMERS SERVICE	Engineering, jobs and constructions, heat flow calculation, supervision on site, thermography service	
	Engineering, Baustellenabwicklung und Konstruktion, Wärmedurchgangsberechnung, Baustellenleitung, Thermografie Service	



Service monolithics formulated for construction as well as maintenance of linings

Monolithische Materialien entwickelt für Konstruktion und Pflege des Mauerwerks

Refrattari adatti alla costruzione e riparazione



	BRANDNAME	DESCRIPTION	Al₂O₃	Others
	LICOFEST G TR	Gunning Mix	55	
	LICOFEST AT 65 G	Gunning Mix	66	
	LICOFEST AT 65 G	Gunning Mix	66	
	LICOFEST SIC V 30 TR	Gunning Mix	40	30 (SiC)
	KEROFLOW SIC 75	Self-flowing castable	15	75 (SiC)
	INJECTMIX LBF	Injection Mix	84	
	KEROFLOW SIC 75	Self-flowing castable	15	75 (SiC)
	LINAX 60	Protective gunning mix	60	
	LINAX 60 R	Service castable	53	
	KEROTAP	Tap hole clay	20 / 70	(SiC + C)
auxiliaries	ISOM 23A	Insulating bricks and shapes for back-up insulation	38	
	ISOM 26		51	

The unavoidable wearing of blast furnace refractory lining, especially in the stack area, leads to an undesired increase of furnace shell temperature.

In the past, repair works of damaged areas required the partial or complete rebuilding of the lining, causing the furnace shut-down and the consequent production loss.

Today, repair works can be performed with a relatively new technique, **THE BLAST FURNACE INJECTIONS**: a special refractory mix, **INJECTMIX LBF**, is injected from the outside of the shell in order to reintegrate the original lining thickness of the area.

The mix sticks and adheres against the "worn-out" lining and the furnace shell, filling any void space or gaps; the charge inside the BF, which is in solid state, works as a mould.

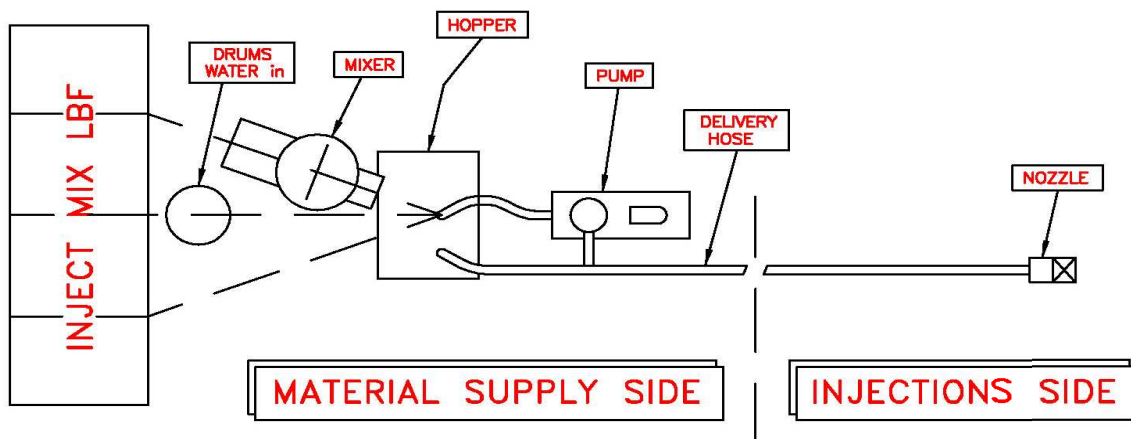
Linco Baxo has developed **INJECTMIX LBF**, a specific range of products which includes:

- Different range of qualities from medium to high alumina content and/or SiC enriched.
- Two different sizes, standard and fine, being the latter used to fill minor cavities and fissures of the old lining.
- Heat bonding system which sets forming a robust crust, suitable to protect the shell and the cooling system of the BF.

Injections are performed when the temperature of the shell is too high (hot spots), or when there are areas subject to risks of cracks in the steel structure. Preventive injections may be applied in order to reduce the risk of deterioration of the cooling system due to the wear of the original lining.

In order to facilitate the injections procedures and improve performances under operation, **INJECTMIX LBF** products exhibit the following features:

- Excellent flowability to easily pass through the pumping hose, the injecting nipple and to fill every cavities and fissures.
- Special bonding system which allows sufficient time for the application to be completed; setting occurs in hot conditions, this preventing any possible problem of reduced flowability and/or segregation of the mix during injections.
- Minimum content of mixing water avoids risk of excessive steam formation; this feature makes the product applicable also in hot conditions.
- Perfect adhesivity on the original lining and steel structure.
- Good resistance to abrasion.
- Physical and chemical properties compatible to the materials used as original lining.



Monolithics for troughs

Rinnenmassen

Refrattari per canali colata

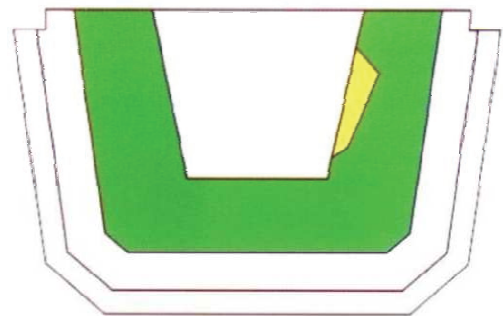
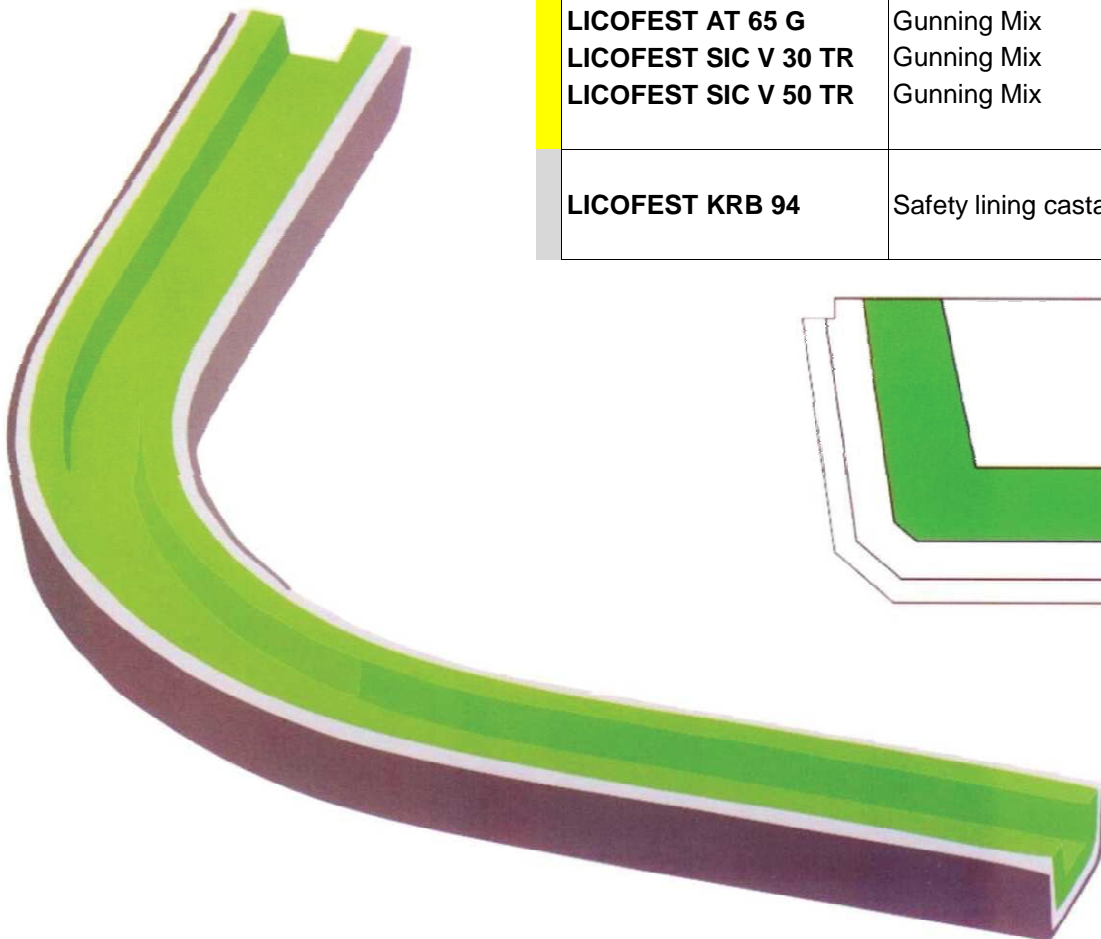


A new class of **ULC** formulated especially for molten metal and slag contact areas.

Unsere neue Serie **ULC**, entwickelt für die Bereiche mit direktem Kontakt zu flüssigem Metall und zu Schlacke.

Una serie di refrattari adatti per contatto metalli e scorie.

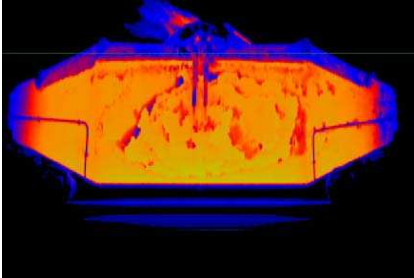
BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
KEROVIB N 15/10	ULC castable	68	22 (SiC+C)
KEROVIB N 16/10	ULC castable	65	25 (SiC+C)
KEROVIB N 32/10	ULC castable	72	20 (SiC+C)
KEROVIB ML 66/6	ULC castable	64	10 (SiC)
KEROVIB A 57/6	ULC castable	61	
LICOFEST AT 65 G	Gunning Mix	66	
LICOFEST SIC V 30 TR	Gunning Mix	40	30 (SiC)
LICOFEST SIC V 50 TR	Gunning Mix	28	50 (SiC)
LICOFEST KRB 94	Safety lining castable	92	



Refractories for torpedo ladle

Massen für Torpedopfannen

Refrattari per carro siluro



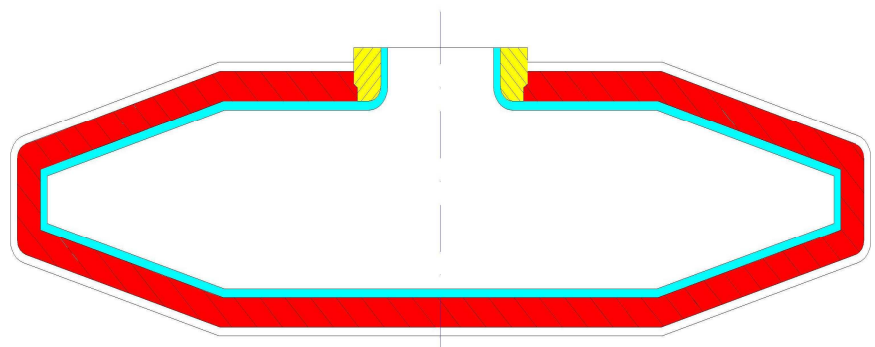
A tailored range of castables which includes gunning mixes and **LC** castables

Eine abgestimmte Palette aus unserem Fertigungsprogramm mit Spritzmassen und **LC** Betonen

Una gamma specifica di calcestruzzi **LC** e gunitabili.



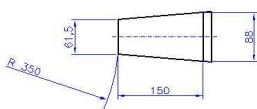
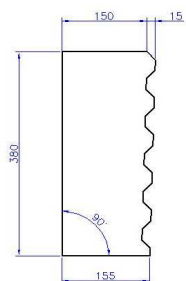
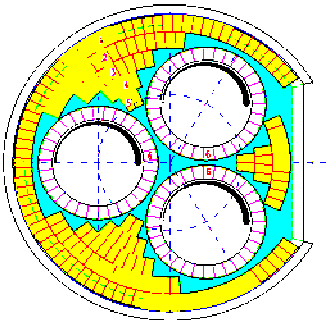
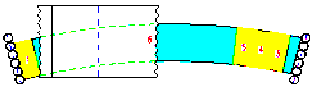
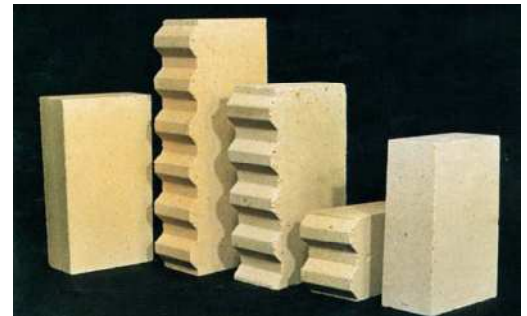
BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
LICOFEST KOR 94 (TR)	Wear resistant castable	94	
LICOFEST SIC V 30 TR	Gunning Mix	40	30 (SiC)
LICOFEST SIC V 50 TR	Gunning Mix	28	50 (SiC)
LICOFEST H 95	High alumina castable	95	
BAXOVIBRO LB	LC Castable	65	
LICOFEST H 95	Castable	95	
MAREF 65 CB	Bricks	60	
LICOFEST H 82 TR PB	Gunning castable	80	
LICOFEST 65 AT G	Gunning castable	66	
LICOFEST 33 G TR	Gunning castable	55	



Refractories for Electric Arc Furnace: Castables and Bricks

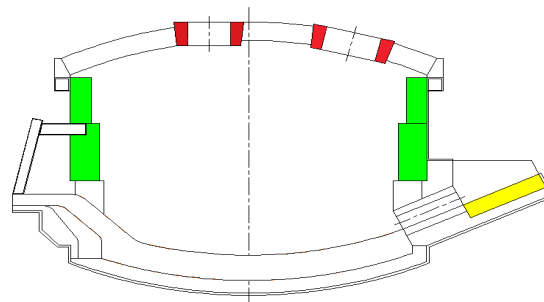
Feuerfestmaterial für Lichtbogenöfen: Beton und Steine

Refrattari per Forno Elettrico: Calcestruzzi e Mattoni



POS.	H	Ø	VOL.
F 1	430	350	4,19
F 2	430	750	5,02
F 3	320	350	3,14
F 4	320	750	3,76
F 5	380	350	3,74
F 6	380	750	4,48
F 8	380	1300	4,68
F 9	470	350	4,77
F 10	470	750	5,52
F 11	430	1000	5,13
F 12	430	1700	4,4

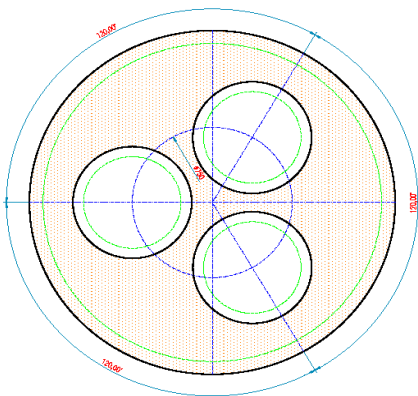
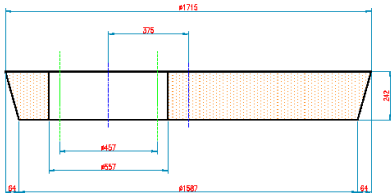
BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
LICOFEST KRB 94 0-10	Refractory castable	92	
LICOFEST TAL 96 K	Refractory castable	93	
LICOFEST H 95	Refractory castable	95	
LICOFEST H 95 CVS	Refractory castable	94	2,4 (Cr ₂ O ₃)
LICOFEST KOR 94	Wear resistant castable	94	
LICOFEST VT 93 QH	ULC castable	87	
BAXOCAST 960	LC castable	86	7 (Cr ₂ O ₃)
BAXOCAST 960 CV	LC castable	83	9 (Cr ₂ O ₃)
MAREF 90 HP	Phos-bonded high alumina bricks	86	
MAREF 90 HPCR	Phos-bonded high alumina bricks	84	3 (Cr ₂ O ₃)
KEROGUN M 25/3	MgO gunning mix		83 (MgO)
KEROGUN M 47/3	MgO gunning mix		90 (MgO)
KEROSEAL 25/6 HS TR	MgO gunning mix		83 (MgO)
KEROVIB N 32/10	ULC castable	72	20 (SiC+C)
auxiliaries Anchors AISI 304,310,430 Melt extract stainless steel fibres	Stainless steel anchors		AISI 304,310,430,446



Refractories for Electric Arc Furnace: Delta Roof

Feuerfestmaterial für Lichtbogenöfen: Deckel

Refrattari Forno Elettrico: Centrovolta Prefabbricato



Precast and fired delta roof

manufactured in different grades of products and according to customers requirements and specifications.

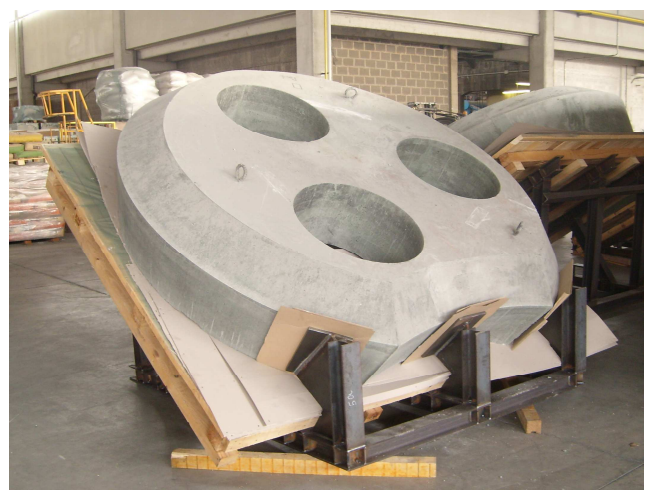
Vorgefertigte und gebrannte Herzstücke für Lichtbogenöfen

Hergestellt in verschiedenen Qualitäten aus unserer Produktgruppe nach kundenspezifischen Vorgaben.

Centro volta prefabbricato

Vengono prodotti a disegno cliente in differenti qualità dei nostri prodotti.

BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
BAXOCAST 960	Precast shape	86	7 (Cr ₂ O ₃)
BAXOCAST 960 CV	Precast shape	83	9 (Cr ₂ O ₃)
BAXOCAST VT 1750	Precast shape	84	
BAXOCAST VT 820	Precast shape	82	



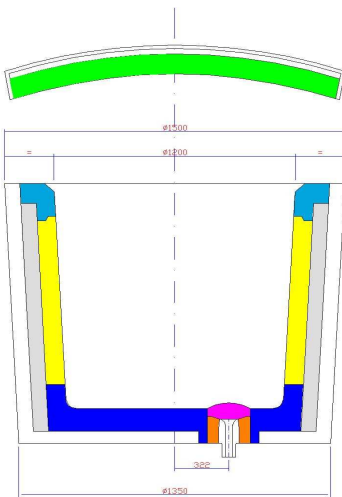
Refractories for ladles
Feuerfestmaterial für Pfannen
Refrattari per siviera



The complete range of alumina and MgO based monolithics, special precast shapes and auxiliaries (e.g. sliding gate filler sands).

Wir produzieren die gesamte Palette hochtonerdhaltiger und MgO-basierender Massen, Fertigteile und Verbrauchsmaterial (z.B. Schiedersand).

Una gamma completa di refrattari alluminosi e basici, incluso pezzi speciali preformati e materiali ausiliari (es.: polveri di partenza).



BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
BAXOVIBRO VT 65 QH	LC castable	68	
BAXOVIBRO VT 93 QH	LC castable	87	
LICOFEST LW 30	Medium light weight castable	92	
LICOFEST TAL 96 K (TR)	Service castable	93	
LICOFEST KRB 94 (TR)	Service castable	92	
LICOFEST H 85 TR	Service castable	85	
LICOFEST 28 TR	Service castable	46	
KEROSEAL M 25/6 HS	Service MgO mix		83 (MgO)
KEROVIB T 31/6	ULC castable	89	9 (MgO)
LICOFEST TAL 96 K0-3 (TR)	Service castable	93	
LICOFEST KRB 94 0-3 (TR)	Service castable	92	
LICOFEST H 82 0-3 (TR)	Service castable	80	
LICOFEST H 95 0-3 (TR)	Service castable	95	
KEROLAN 780 SR	Vibratable dry mix	80	15 (SiC)
KEROLAN 880	Vibratable dry mix	89	
KEROLAN B	Filling dry mix	2	40 (MgO)
MAREF 45Y - MAREF 65Y	Safety lining bricks	43 / 62	
KEROVIB T 31/6	ULC castable	89	9 (MgO)
BAXOCAST 395	Refractory castable	94	
LICOFEST TAL 96 K	Refractory castable	93	
BAXOQUICK 33	Sliding gate filler sand	33 (Cr ₂ O ₃)	31 (SiO ₂)
BAXOQUICK 42	Sliding gate filler sand	43 (Cr ₂ O ₃)	10 (SiO ₂)
BAXOQUICK K	Sliding gate filler sand	15 (Cr ₂ O ₃)	68 (SiO ₂)
ISOM 23A, 26, 28	Insulating bricks, splits and shapes		
Ceramic and soluble fibres	Blankets, modules, papers and boards		
Melt extract stainless steel fibres	AISI 304, 310, 430, 446		



Precast and fired ladle bottoms, bottom impact pads, well blocks and porous plug blocks, ladle furnace roof, stirring lances

are manufactured in different grades and according to customers requirements and specifications.

Vorgeformte und gebrannte Pfannenböden, Prallplatten, Spülsteine, Pfannendeckel und Spüllanzen

werden in verschiedenen Qualitäten nach kundenspezifischen Vorgaben hergestellt.

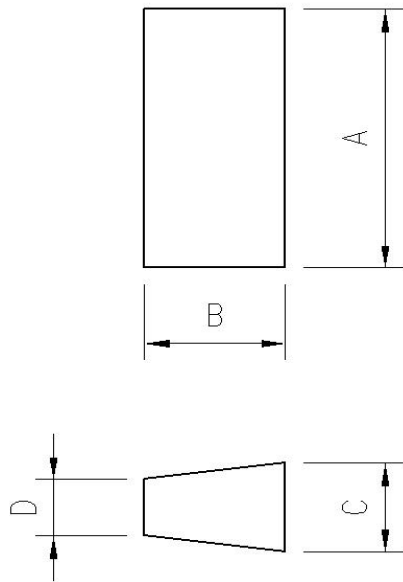
Blocchi per fondo siviera ed impatto getto, scaricatori e setti porosi, coperchi siviera e lance

sono prodotte in base a disegno e specifiche cliente.

precast shapes

auxiliaries

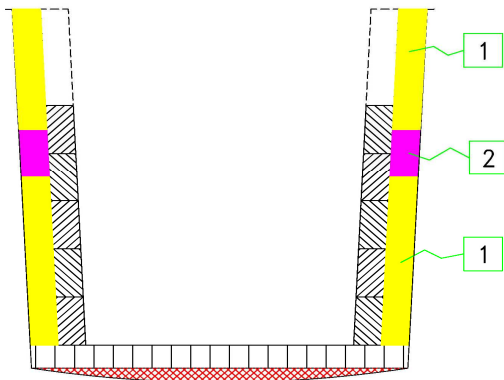
Refractories for ladles
Feuerfestmaterial für Pfannen
Refrattari per siviera



CODE	dimensions (mm)				Volume dm ³
	A	B	C	D	
1 S/100	230	90	108	93	2,08
2 S/100	230	90	103	97	2,07
3 S/100	230	115	110	91	2,65
4 S/100	230	115	103	96	2,62
5 S/100	230	140	111	89	3,20
6 S/100	230	140	105	96	3,20
7 S/100	230	172	112	88	3,96
8 S/100	230	172	106	94	3,96
9 S/100	230	200	113	88	4,62
10 S/100	230	200	107	94	4,62
11 S/100	230	230	113	87	5,30
12 S/100	230	230	107	92	5,26



KEROLAN: a case history for ladle safety lining



- 1 KEROLAN 880
- 2 KEROLAN 780 SR

KEROLAN is applied contemporaneously to the installation of bricks wear layer; **KEROLAN** is dry rammed into the gap among the steel structure/insulation and the wear lining. When the ladle is heated up, **KEROLAN** sinters and hardens, achieving the required mechanical resistance.

KEROLAN 880 is a dry alumina ramming mix tailored as safety layer ladle of the sidewalls.

KEROLAN 780 SR is a dry alumina ramming mix enriched with silicon carbide, tailored as safety layers of ladle in the slag area.

KEROLAN advantages:

- Refractory dry ramming mix is applied as a safety layer for steel ladle or pouring off ladle.
- High-tech replacement of safety bricks and/or castable lining.
- Ready dry mix to use, applicable **without** any addition of water or any other liquid binders.
- Installation of wear lining and safety lining takes place and progresses to completion at the same time.
- Drying-up is not required.
- The initial higher cost is offset by longer life expectancy.
- Partial and local repairs are commonly carried out.



BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
KEROLAN 880	Dry ramming mix	89	
KEROLAN 780 SR	Dry ramming mix	80	15 (SiC)

KEROLAN: Anwendungsfall Dauerfutter für Giesspfannen

KEROLAN wird gleichzeitig mit der Verschleißschichte aus Steinen hochgezogen.

KEROLAN wird trocken zwischen Steinlage und Stahlkonstruktion/Isolierung verdichtet. Während des Aufheizens der Pfanne sintert und verfestigt **KEROLAN** auf die geforderten mechanischen Werte.

KEROLAN 880 eine Hochtonerde Trockenrüttelmasse, geeignet als Sicherheitsfutter für Seitenwände von Pfannen.

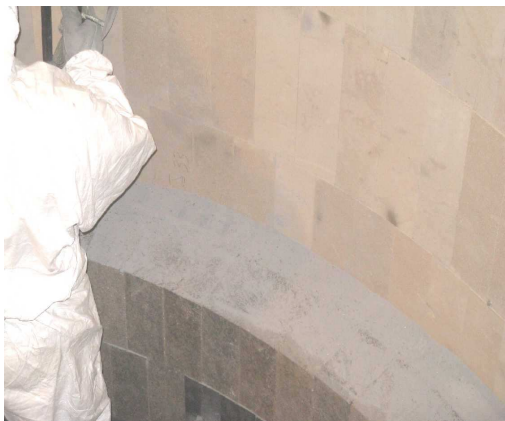
KEROLAN 780 SR eine Hochtonerde Trockenrüttelmasse, angereichert mit Siliziumcarbid (SiC), geeignet als Sicherheitsfutter für Schlackenzone von



Vorteile von KEROLAN:

- Feuerfeste Trockenrüttelmasse als Sicherheitsfutter in Stahl- und Giesspfannen
- Ersatz von Stein- und/oder Betonendauerfutter
- Fertigmischung, Einbringung **ohne** Wasser- oder Flüssigbinderzugabe
- Einbau erfolgt gleichzeitig mit dem Verschleissmauerwerk
- Kein Austrocknen notwendig
- Höhere Anschaffungskosten werden mit längerer Lebensdauer kompensiert
- Reparaturen am Dauerfutter können einfach ausgeführt werden

KEROLAN: un nuovo sistema di rivestimento sicurezza siviera



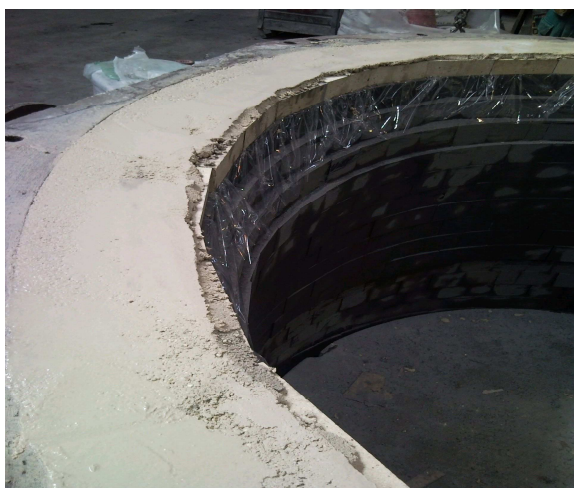
Il **KEROLAN** viene applicato durante la costruzione del rivestimento di usura mattoni, costipandolo a secco nell'intercapedine fra la carpenteria/isolamento e i mattoni di usura. Quando la siviera viene portata a temperatura di lavoro il **KEROLAN** sinterizza divenendo monolitico ed acquisendo le caratteristiche di resistenza meccanica.

KEROLAN 880 è una pigiata secca alluminosa particolarmente indicata per rivestimenti siviera acciaio in zona parete.

KEROLAN 780 SR è una pigiata secca alluminosa a base di allumina/carburo di silicio, particolarmente indicata per rivestimenti di sicurezza siviera acciaio nella zona taglio scorie.

Vantaggi KEROLAN:

- La pigiata secca si applica durante la costruzione del rivestimento mattoni usura come strato monolitico di sicurezza.
- Rimpiazzo dello strato di sicurezza in mattoni e/o gettata.
- Pigiata secca pronta all'uso **senza** aggiunta di acqua e/o legante chimico.
- L'installazione dello strato di usura e di sicurezza vengono effettuati contemporaneamente.
- L'essiccazione iniziale non è richiesta.
- Il costo iniziale viene ammortizzato nel tempo, grazie alla durata.
- Durante la riparazione sarà sufficiente ripulire la zona interessata e riapplicare il prodotto.



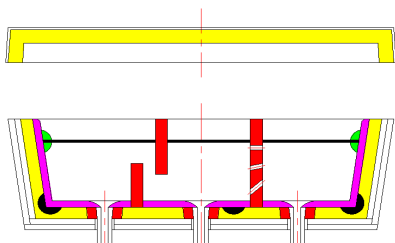
Tundish Verteiler Paniera



The complete range for construction and service of tundish: alumina and magnesite monolithics, special preformed shapes.

Wir produzieren die gesamte Palette hochtonerdhaltiger und MgO-basierender Massen und Fertigteile.

Una gamma completa di refrattari per il tundish: refrattari informi alluminosi e basici, pezzi speciali a disegno.



BRANDNAME	DESCRIPTION	Al ₂ O ₃	Others
BAXOVIBRO VT 820	Precast shape	82	
BAXOVIBRO LB	Precast shape	65	
KEROSEAL M 25/6 HS	Service MgO mix		83 (MgO)
KEROSEAL M 70	Service MgO mix		64 (MgO)
KEROSEAL M 80	Service MgO mix		69 (MgO)
LICOFEST 36 BL	Castable for lids	61	
BAXOVIBRO TX 60 QH	ULC castable	86	
BAXOVIBRO VT 820	LC castable	82	
BAXOVIBRO LB	LC castable	65	
KEROVIB 1700 S	LC castable	80	
MAREF 33 - MAREF 45Y	Refractory bricks	33 / 42	
MAREF 65Y - MAREF 92 KC	Refractory bricks	62 / 90	
KEROGUN M 24/1	MgO tundish spraying mix		83 (MgO)
KEROGUN M 29/1	MgO tundish spraying mix		90 (MgO)
LINAX 60 - LINAX 70	Service castable	60 / 71	
BAXOFIX 75	Service castable	70	
ISOM 23A/26/28	Insulating bricks, splits and shapes		
Ceramic and soluble fibres	Blankets, modules, papers and boards		
Melt extract stainless steel fibres	AISI 304, 310, 430, 446		

auxiliaires

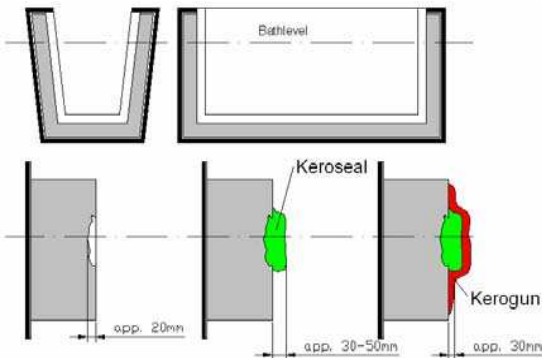


KEROSEAL is a MgO mix for universal applications for **EAF, tundishes** and **ladles**.

KEROSEAL was formulated specially for resurfacing/sealing of existing refractories, and offers high mechanical resistance coupled with low shrinkage. The nature of the product's binder and the sizing of its aggregate assure instant adhesion to the refractory surface without any rebound and waste.

KEROSEAL advantages:

- Increased lifetime of permanent lining for **tundish and ladle**
- Increased wear resistance in slag area
- Possibility to achieve longer production run sequences
- No sticking of steel/slag to the safety lining (especially in the slag area)
- Working in safer environment
- **KEROSEAL** is applied by rough casting, trowelling, gunning and ramming



KEROSEAL applications:

- **LADLE:** junction and connection between bricks and steel casing
- **EAF:** sealing and filling between bricks and cooling slabs
- **TUNDISH:** reinforcement and strengthening lining in the slag zone

BRANDNAME	DESCRIPTION	MgO
KEROSEAL 25/6 HS	service MgO mix	83
KEROSEAL 70	service MgO mix	64
KEROSEAL 80	service MgO mix	69

KEROSEAL ist ein MgO basiertes Material zur Reparatur und Pflege von **EAF, Verteilern** und **Pfannen**. **KEROSEAL** wurde für Oberflächen-pflege und Versiegelung entwickelt und besitzt hohe Festigkeit, sowie niedrige Schwindungswerte. Der Kornaufbau und das Bindersystem garantieren sehr gute Haftfähigkeit und geringsten Rückprallverlust.



Vorteile von KEROSEAL:

- Längere Lebensdauer von Dauerfutter in **Verteilern und Pfannen**
- Erhöhte Haltbarkeit in Schlackenzone
- Längere Sequenzen können beim Giessen erreicht werden
- Kein Festkleben von Schlacken am Dauerfutter (speziell in Schlackenzone)
- Erhöhung der Sicherheit des Arbeitsumfeldes
- **KEROSEAL** kann durch Anwerfen, Spritzen, Schmieren oder Stampfen aufgebracht werden.

Anwendung von KEROSEAL:

- **PFANNEN:** Füllen von Fugen und Verbindungen zwischen Steinen und Stahlkonstruktion
- **EAF:** Verfüllen und Dichten zwischen Steinen und Kühlkästen
- **VERTEILER (Tundish):** Verstärkung und Reparatur von Schlackenzone

KEROSEAL: applicazioni per EAF, siviera e paniera

KEROSEAL è un materiale basico sviluppato per le esigenze dell'acciaieria.

Applicazioni tipiche:

- Nel **forno elettrico** come sigillante tra mattoni e pannelli di raffreddamento
- In **siviera** come raccordo fra mattoni e carpenteria
- In **paniera** come rinforzo al permanente in zona taglio scoria

Trattandosi di un prodotto basico, garantisce una continuità nel rivestimento delle **siviere** o del **forno elettrico** e una maggiore resistenza alla scoria acida in permanente **paniera**.

I prodotti **KEROSEAL** possono essere applicati a getto, cazzuolatura, gunitaggio e pigiata.

Precast shapes
Fertigteile
Blocchi prefabbricati



precast shapes

Precast and fired ladle bottoms, well blocks, baffles, dams, weirs, bottom impact pads, tundish box, stirring lances and burners blocks

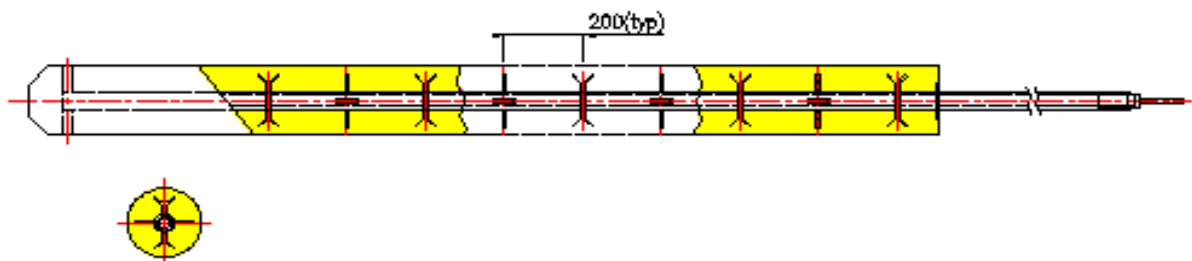
Are manufactured in different grades and according to customers requirements and specifications.

Vorgeformte und gebrannte Pfannenböden, Lochplatten, Wehre, Dämme, Prallplatten, Verteiler, Spüllanzen und Brennerblöcke

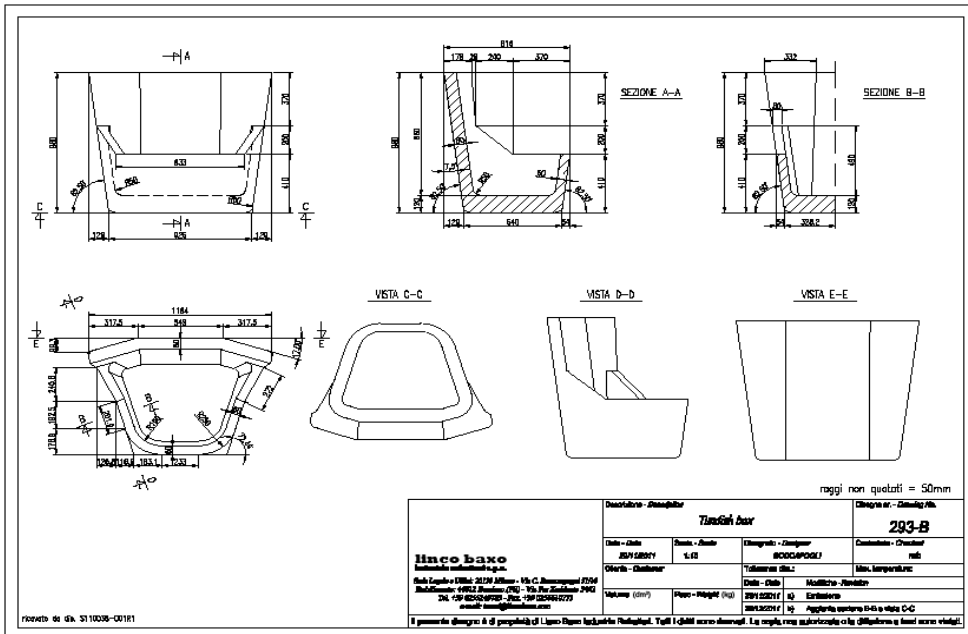
werden in verschiedenen Qualitäten nach kundenspezifischen Vorgaben hergestellt.

Blocchi per fondo siviera ed impatto getto, barriere, tundish box, pozzetti, scaricatori e setti porosi, coperchi siviera, lance e blocchi bruciatori

sono prodotte in base a disegno e specifiche cliente.



Precast shapes
Fertigteile
Blocchi prefabbricati



Monolithic roof system

Monolithisches Deckensystem

Volta: sistema monolitico



LICO-CLAY plastic mouldables are manufactured with premium grade raw materials and provide good thermal resistance. These products are rammed in site and have proven very reliable through many years of succesful use in lining roofs. Our castables **LICOFEST 32 0-10 QH** and **LICOFEST 1600 0-10 QH** have been specially formulated to cast easily roofs in site and they are an excellent alternative to ramming **BAXOPLAST** is a plastic casting mix which couples the ease of casting installation to mouldable properties with high resistance to temperature spalling and thermal shock. **BAXOGUN** is a dry plastic gunning mix, which may be easily and quickly placed and is a recommended alternative to other techniques.

Plastische Massen **LICO-CLAY** werden aus hochwertigen Rohstoffen hergestellt und weisen hohe Temperaturbeständigkeit auf.

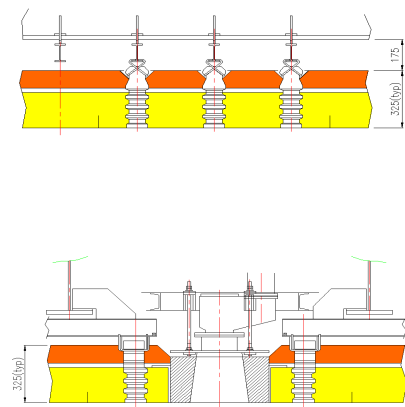
Diese Produkte, gekennzeichent durch ihre Verarbeitbarkeit, haben sich über Jahre als Deckenauskleidung bestens bewährt.

Feuerbetone **LICOFEST 32 0-10 QH** und **LICOFEST 1600 0-10 QH**, welche gezielt zur Deckenkonstruktion mittels Gießen entwickelt wurden, sind eine sehr gute Alternative zu plastischen Massen.

BAXOPLAST ist eine gießbare, plastische Masse, welche die Vorteile der Gießzustellung und die der Stampfmassen (Temperaturwechselbeständigkeit) vereinen.

BAXOPLAST ist eine trockene plastische Spritzmasse, welche leicht und einfach zugestellt werden kann.

Darüber hinaus ist es eine Alternative zu anderen Zustellungsstechniken.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICO-CLAY X 36	Plastic Mouldable	52
LICO-CLAY X 39	Plastic Mouldable	81
LICO-CLAY X 41	Plastic Mouldable	86
LICOFEST 32 0-10 QH	Refractory castable	50
LICOFEST 1600 0-10 QH	Refractory castable	67
BAXOPLAST 1700	Plastic castable	63
BAXOGUN 606 S / 706 S	Plastic gunning mixes	57 / 72
LICOFEST L 05	VLW castable	28
LICOFEST L 045	VLW castable	26
Anchor bricks	Ceramic anchors	A305/M12/M18a
Clamps	Stainless steel anchor system	A313-A320-A361
LM 1260 / 1430	Ceramic fibre blankets	



LICOBLOCK roof system

LICOBLOCK Deckensystem

Volta: sistema blocchi LICOBLOCK



LICOBLOCK roof system is manufactured by machine-pressing special phos-bonded mixes into large block shapes and then dried / fired.

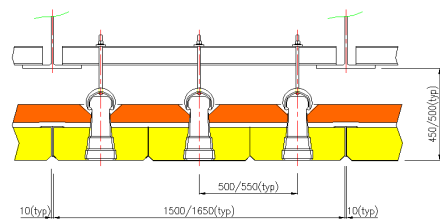
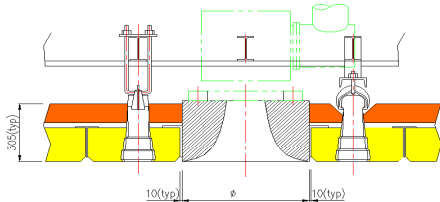
The combination of material properties and tailored engineered solutions offers the capability to design and precision-form roofs with extended life compared to traditional monolithic linings.

LICOBLOCK roof system permits then easy and quick installation.

Phosphatgebundene Spezialblöcke **LICOBLOCK Deckensystem** sind gepresst und anschließend getrocknet, getempert und/oder gebrannt.

Eine Kombination von Materialauswahl und maßgeschneidertem Engineering schafft Lösungen für exakte Deckenzustellungen, die erhöhte Lebensdauer gegenüber herkömmlichen Zustellungen aufweisen.

Das **LICOBLOCK Deckensystem** erlaubt eine einfache und schnelle Montage.

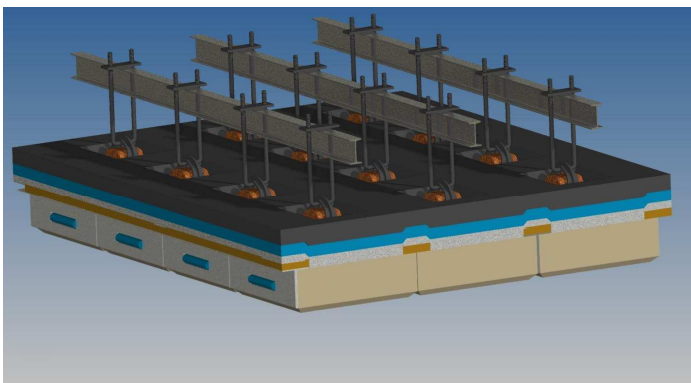


BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOBLOCK 35 CH	Prefired phos-bonded blocks	53
LICOBLOCK 37 CH	Prefired phos-bonded blocks	68
MAREF 45Y	Dry pressed splits	43
LICOFEST L 05	VLW castable	28
LICOFEST L 045	VLW castable	26
Anchor bricks	Ceramic anchors	A401
Clamps	Stainless steel anchors	A421+A320
LM 1260 / 1430	Ceramic fibre blankets	

Precast burner blocks and roof blocks are manufactured in different grades according to customers requirements and specifications.

Geformte Brennersteine und Deckenbauteile werden in verschiedenen Qualitäten nach kundenspezifischen Anfragen und Vorgaben hergestellt.

Blocchi volta e blocchi bruciatori sono fabbricati in varie qualità in base a disegno cliente.



Roof: Preheating zone

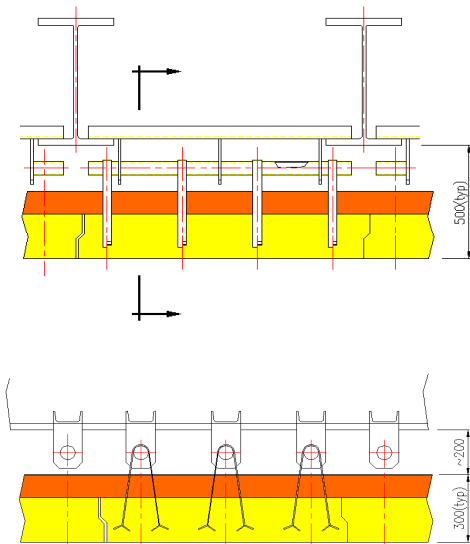
Decke: Anwärmzone

Volta: Zona di preriscaldamento



LICOFEST L and LICOFEST FL range features good insulation characteristics together with high refractoriness. These products have been proved to be a reliable and cost-efficient lining of this area.

Die hohen Isoliereigenschaften von LICOFEST L und LICOFEST FL zusammen mit einer sehr guten Temperaturbeständigkeit, sind eine technische und ökonomische Lösung in diesem Anwendungsfeld.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST FL 35	MW castable	49
LICOFEST PC 14 HT	MW castable	40
LICOFEST FL 60	MW castable	59
LICOFEST L 05	VLW castable	28
LICOFEST 5 V	VLW castable	31
LICOFEST L 045	VLW castable	26
Anchor LM 1260 / 1430	Stainless steel anchors Ceramic fibre blankets	A360



Roof: Bullnose

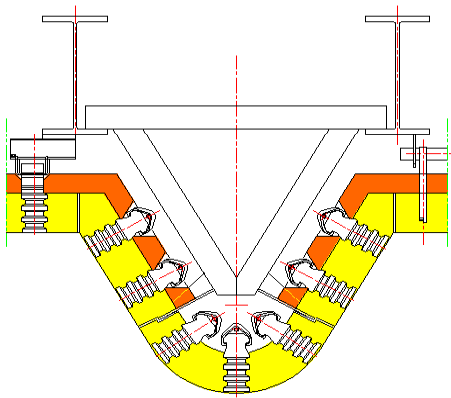
Decke: Einschnürungen

Volta: naso



Bull noses, inclined roofs and roofs partition walls are lined with **LICO-CLAY** mouldables; a complete engineering package, wide experience and products outstanding quality ensure easy installation and erection.

Einschnürungen, Schotte und Trennwände werden normalerweise mit unseren plastischen Massen **LICO-CLAY** ausgekleidet. Ausgefeilte Entwicklung und unsere breit gefächerte Erfahrung, zusammen mit hoher Produktqualität, sichern einfachste Montage und Anwendung.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICO-CLAY X 36	Plastic mouldable	52
LICO-CLAY X 39	Plastic mouldable	81
LICO-CLAY X 41	Plastic mouldable	86
LICOFEST L 05	VLW castable	28
LICOFEST L 045	VLW castable	26
Anchor bricks	Ceramic anchors	A305/A306
Clamps	Stainless steel anchors	A313
LM 1260 / 1430	Ceramic fibre blankets	



Hearth: Walking hearth furnaces

Herd: Hubherdofen

Suola: forni a longheroni



LICOFEST PL and **BAXOVIBRO** are products specially designed to withstand high-temperature abrasion and prevent slag build-up, which are common in today's steel industry.

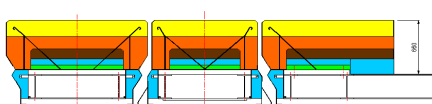
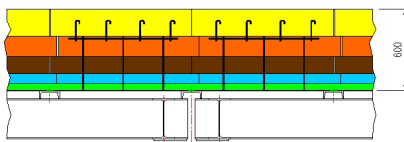
Hearth lining is often stainless steel reinforced.

BAXOVIBRO VT ZMX SUPER 0-10 is the most suitable choice for severe and extreme working conditions.

LICOFEST PL und **BAXOVIBRO** wurden entwickelt, um Hochtemperaturbetrieb bzw. Zunder-und/oder Schlackenaufbau zu minimieren.

Der Herd wird normalerweise mit Stahlnägeln verstärkt.

BAXOVIBRO VT ZMX SUPER 0-10 ist die beste Wahl bei extrem harten Betriebsbedingungen



BRANDNAME	DESCRIPTION	Al ₂ O ₃	OTHERS
LICOFEST PL 300/370 QH	LC castable	66 / 47	
BAXOVIBRO VT 370 QH	LC castable	67	
BAXOVIBRO VT 820 QH	LC castable	82	
BAXOVIBRO 335 QH	LC castable	64	
LICOFEST 37 QH	Refractory castable	63	
BAXOVIBRO VT ZMX Super 0-10	Wear resistant LC	54	ZrO ₂ 26
LICOFEST 18	Refractory castable	39	
LICOFEST FL 201	MW castable	35	
LICOFEST L 09	LW castable	29	
SILTHERM 1000/1100 boards	Calcium silicate boards		



Hearth: Rotary, boogie hearth and forging furnaces

Herd: Drehherdöfen, Herdwagen und Schmiedeöfen

Suola: forni rotativi e forni da forgia

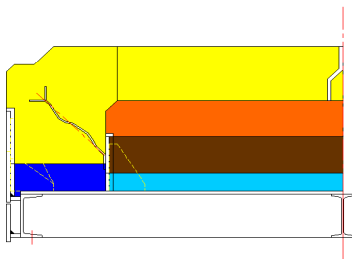


Our range of LC and ULC castables has been developed to meet severe working conditions; their outstanding properties make them an excellent choice for monolithic vibro-casting of hearth.

BAXOVIBRO VT ZMX SUPER 0-10 is the most suitable choice for severe and extreme working conditions.

Unsere Serie von LC und ULC Feuerfestbetonen wurde speziell für den Einsatz bei erschwerten Betriebsbedingungen erstellt. Ihre hervorragenden Eigenschaften machen sie zur ersten Wahl bei monolithisch zugestellten Herden.

BAXOVIBRO VT ZMX SUPER 0-10 ist die beste Wahl bei extrem harten Betriebsbedingungen



BRANDNAME	DESCRIPTION	Al ₂ O ₃	OTHERS
LICOFEST PL 300/370 QH	LC castable	47 / 66	
BAXOVIBRO VT 370 QH	LC castable	67	
BAXOVIBRO VT 820 QH	LC castable	82	
BAXOVIBRO VT 1750	LC castable	84	
BAXOVIBRO VT ZMX Super 0-10	Wear resistant LC castable	54	ZrO ₂ 26
LICOFEST 37 QH	Refractory castable	63	
LICOFEST 18/18 HT	Refractory castable	39 / 42	
BAXOVIBRO VT 370 QH	LC castable	67	
LICOFEST FL 201	MW castable	35	
LICOFEST L 09	LW castable	29	
SILTHERM 1000/1100 boards	Calcium silicate boards		



Hearth: Walking Beam Furnace

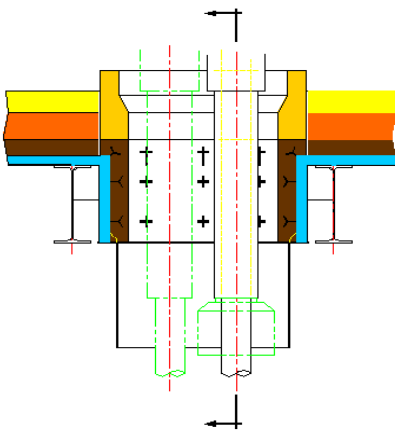
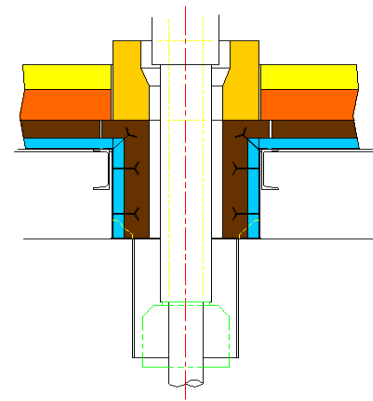
Herd: Hubbalkenofen

Suola: forni a longheroni



These LC Castables feature good resistance to slag build-up coupled with excellent volumetric stability; they are designed to withstand several working conditions which are common in today's W.B.F. hearts.

Die Feuerfestbetone der Serie LC zeichnen sich besonders durch Ihre Beständigkeit gegen Zunder und Schwindungsarmut aus. Sie sind zum Einsatz unter schwersten Bedingungen in Hubbalkenöfen entwickelt worden.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST PL 370 QH	LC castable	66
BAXOVIBRO VT 270 QH/VT 370 QH	LC castable	59 / 67
LICOFEST 37 QH	Refractory castable	63
LICOFEST 18/18 HT	Refractory castable	39 / 42
LICOFEST FL 201	MW castable	35
SILTHERM 1000/1100 boards	Calcium silicate boards	

Precast and prefired beam sockets are manufactured in different grades and according to customers requirements and specifications.

Vorgeformte und gebrannte Rohrverkleidungen werden in verschiedenen Qualitäten in kompletter Übereinstimmung mit Kundenvorgaben geliefert.

Blocchi prefabbricati colati per logge passaggio longheroni mobili sono fabbricati in varie qualità in base a disegno cliente.



Skid pipe insulation, burner blocks and hearth blocks

Rohrverkleidung, Brennersteine und Herdbauteile

Prefabbricati: moduli per tubazioni interne longheroni, blocchi bruciatori e blocchi suola

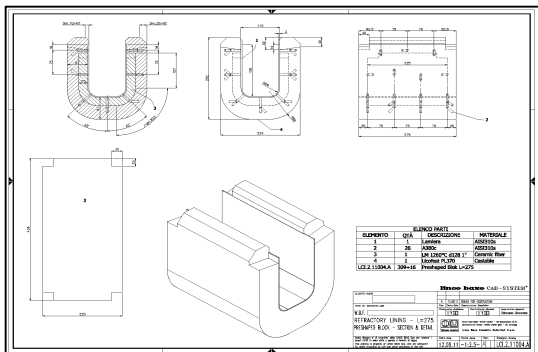


LINCO BAXO has developed a range of products tailored to the manufacture of special shapes such as skid pipe insulation, burner blocks and hearth blocks.

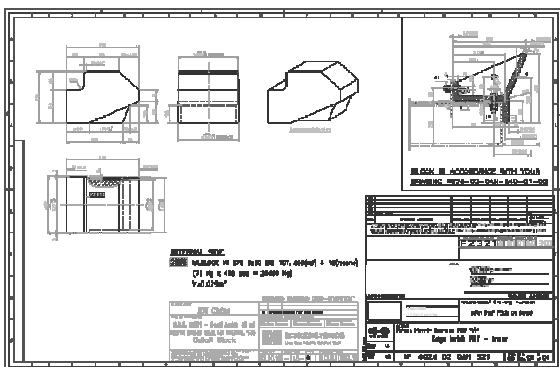
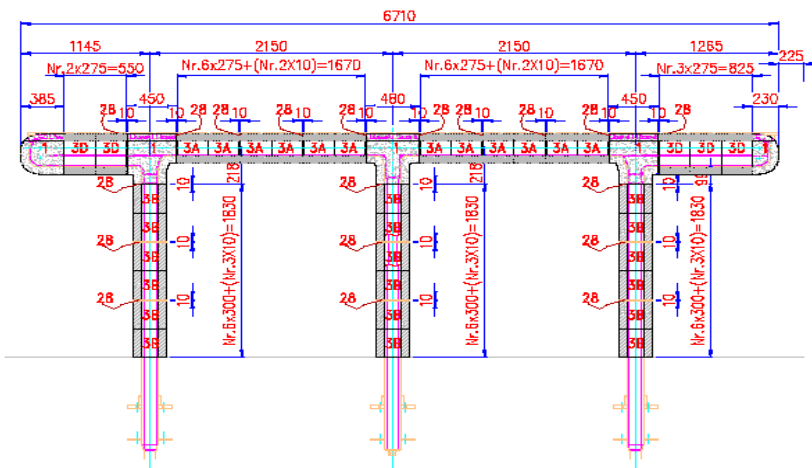
Production is made by casting and vibrating special mixes in moulds. The shapes are then dried and/or fired.

LINCO BAXO entwickelte eine Reihe von Fertigteilen für Anwendung in der Stahlindustrie, wie z.B. Isolierschalen für Rohrsysteme von Anwärmlöfen, Brennersteine und Herdbauteile.

Die Produktion erfolgt durch Giessen oder Vibrieren von Spezialmaterialien in Formen. Fertigteile werden getrocknet und/oder gebrannt ausgeliefert.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
MILBLOCK 370	Precast shape for skid pipe insulation	67
MILBLOCK 820	Precast shape for skid pipe insulation	82
LICOFEST MW 95 C	Precast shape for skid pipe insulation	95



Hearth: Beams and partition walls

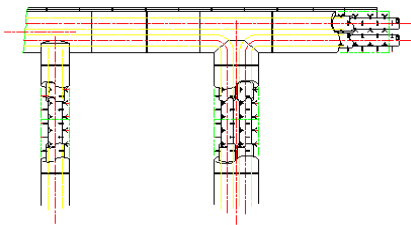
Herd: Rohrverkleidung und Trennwände

Suola: beams e muri divisori



These **LC Castables** exhibit outstanding properties, easiness of placement and are a common choice for severe operations. Stainless steel gun welded studs provide additional reinforcement to the lining.

Diese **LC Betone** besitzen hervorragende Eigenschaften; einfache Montage für Einsatz unter schwersten Betriebsbedingungen. Geschweißte Stahlanker sichern zusätzliche Standfestigkeit der Auskleidung.

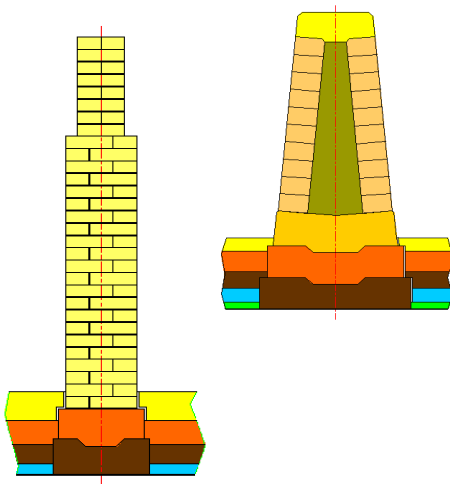


BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST 791 SF	Easy flow castable	80
BAXOVIBRO VT 370 QH	LC castable	67
KEROMIX 10/12	Multipurpose castable	55 / 80
LM 1260 / 1430	Ceramic fibre blankets	



Partition walls are lined with trapezium-shape **LICOBLOCK-system**, which ensures suspension stability. Standard lining with premium grade high-alumina bricks quality **MAREF 45Y/65Y** is a simple and cost-efficient alternative.

Große Blöcke, System **LICOBLOCK**, zusammen mit trapezförmigem Mauerwerk, geben diesem maximale Stabilität. Hochtonerhaltige Steine, **MAREF 45Y/65Y**, stellen eine praxisgerechte und preiswerte Alternative dar.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
MAREF 45Y/ MAREF 65Y	High duty refractory bricks	43 / 62
LICOBLOCK TB 1 CH	Phos-bonded blocks	53
LICOFEST PL300/PL370 QH	LC castable	66 / 47
LICOFEST 18/18 HT	Refractory castable	39 / 42
LICOFEST FL 201	MW castable	35
LICOFEST L 09	LW castable	29
SILTHERM 1000/1100	Calcium silicate boards	



Sidewalls: monolithic system for heating and soaking zone

Seitenwände - Aufheiz - und Ausgleichszone

Pareti laterali: rivestimento monolitico zona riscaldamento ed equalizzazione



Sidewalls exhibit large areas which are lined with a multiple layer-system, based on high-alumina castables and/or mouldables.

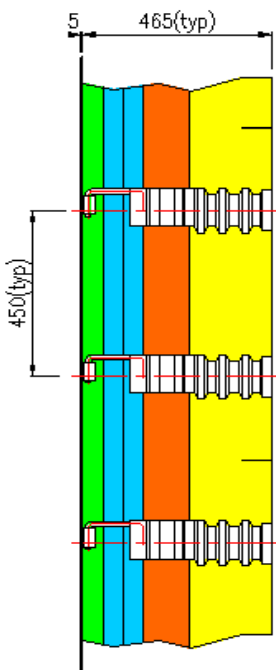
BAXOGUN is a dry plastic gunning mix, which may be easily and quickly placed and is a recommended alternative to other techniques.

BAXOPLAST is a plastic casting mix which couples the ease of casting installation to mouldable properties with high resistance to temperature spalling and thermal shock.

Die großen Oberflächen der Seitenwände in den Öfen werden im Multilayersystem angekleidet. Je nach Bedarf wird der heiße Teil der Wand mit Feuerfestbeton und/oder mit hochtonerdehaltigen plastischen Massen zugestellt.

BAXOPLAST ist eine gießbare, plastische Masse, welche die Vorteile der Gießzustellung und die der Stampfmassen (Temperaturwechselbeständigkeit) vereinen.

BAXOGUN ist eine trockene plastische Spritzmasse, welche leicht und einfach zugestellt werden kann. Darüber hinaus ist es eine Alternative zu anderen Zustellungstechniken.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST 32 0-10 QH	Refractory castable	50
LICOFEST 1600 0-10 QH	Refractory castable	67
LICO-CLAY X 36	Plastic mouldable	52
LICO-CLAY X 39	Plastic mouldable	81
BAXOGUN 606 S/706 S	Plastic gunning mix	57 / 72
BAXOPLAST 1700 / 1800	Plastic casting mix	63 / 80
ISOM 23A/26	Insulating bricks	38 / 58
SILTHERM 1000/1100	Calcium silicate boards	
PARGAS / BASALAN	HT mineral wool boards	
Anchor bricks Hooks	Ceramic anchors Stainless steel anchors	A300 / Maref ARP A313+A324



Sidewalls: LICOBLOCK system for heating and soaking zone

Seitenwände - Aufheiz - und Ausgleichszone: Blockzustellung LICOBLOCK

Pareti laterali: sistema LICOBLOCK zona riscaldamento ed equalizzazione

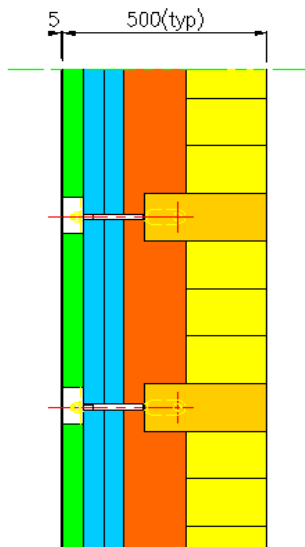


LICOBLOCK SYSTEM is a reliable and long lasting solution for severe working conditions. These range of blocks features high density, good resistance to thermal shock and slag build-up; scores of customers have experienced extended lining life compared to traditional monolithic linings.

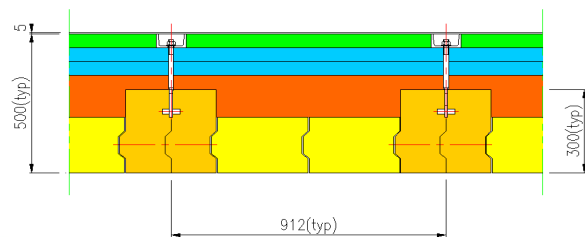
LICOBLOCK are supplied dried and pre-fired and therefore they do not require heating up prior to furnace operation; minimum water content permits quick heat up.

LICOBLOCK SYSTEM ist erfahrungsgemäß die optimale Variante bei schwersten Betriebsbedingungen. Wandblöcke sind mit spezifischer Charakteristik in Bezug auf hohe Dichte, Temperaturschock und Zunderablagerungen entwickelt worden. Dieses System hat zu einer wesentlich längeren Lebensdauer im Vergleich zu herkömmlichen monolithischen Zustellungen geführt.

LICOBLOCK wird getrocknet und vorgebrannt ausgeliefert. Dadurch entfällt die Aufheizphase beim Austrocknen.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST TB1 CH	Phos-bonded blocks	53
LICOFEST TB2 K	Phos-bonded blocks	60
LICOFEST L 08 CB	LW castable	44
SILTHERM 1000/1100	Calcium silicate boards	
PARGAS / BASALAN	HT mineral wool boards	



Sidewalls: ceramic fibre module system

Seitenwände: Keramische Fasermodule Zustellung

Pareti laterali: sistema a moduli in fibra ceramica

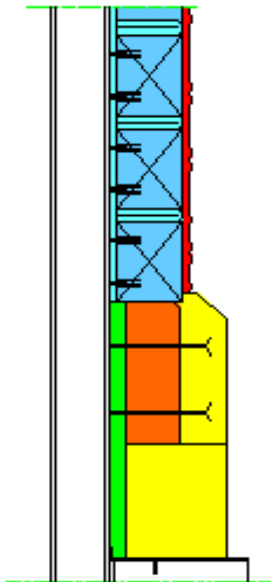


Our system **L MOD** has been designed to feature the best possible insulation characteristics coupled with speed and ease of placement.

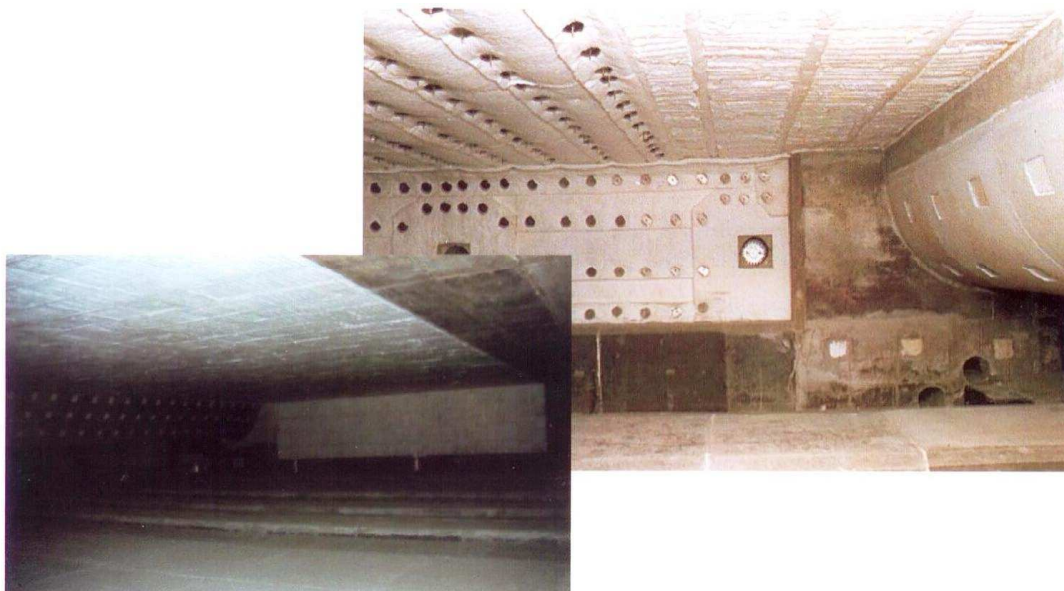
LB MUL-COAT MIX is a coating material which is used to provide wear and corrosion protection to the surface of the fibre linings.

Das System **L MOD** wurde entwickelt, um über optimale Isoliereigenschaften hinaus einfachste Montagehandhabung bei allen Auskleidungen mit Keramikfasern zu erlangen.

LB MUL-COAT MIX ist ein schützender Überzug für Keramikfasermodule, um Oberflächenkorrosion und Abnutzung zu minimieren.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST FL 201 LICOFEST 18/18 HT	MW castable Refractory castable	35 39 / 42
LB MUL-COAT MIX	Coating mix	85
SILTHERM 1000/1100	Calcium silicate boards	
L MOD 12/14	Ceramic fibre modules	
LM 1260 / 1430	Ceramic fibre blankets	
ISOM 23A/26	Insulating bricks	38 / 58



Sidewalls: preheating zone

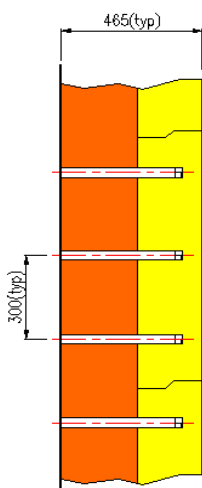
Seitenwände: Vorwärmzone

Pareti laterali: zona preriscaldo



A selection of linings with monolithics featuring good insulation properties together with high refractoriness.

Eine Auswahl an monolithischen Materialien mit guten Isoliereigenschaften und exzellenten Feuerfestigenschaften.



BRANDNAME	DESCRIPTION	Al ₂ O ₃
LICOFEST FL 201	MW castable	35
LICOFEST 18/18 HT	Refractory castable	39 / 42
LICOFEST FL 35	MW castable	49
ISOM 23A/26	Insulating bricks	38 / 58
Anchor	Stainless steel anchors	A370



Heat-resistant textiles

Hitzebeständige Textilien

Tessili resistenti al calore

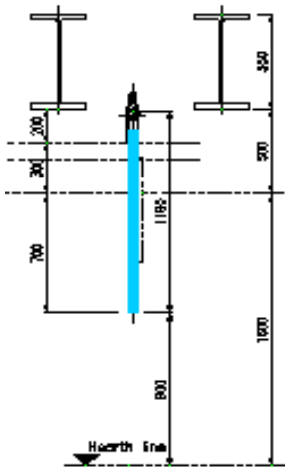


We supply the whole range of heat-resistant textiles such as zone-dividers, furnace lining protection covers, sealing ropes (glass and ceramic), insulation sleevings and various items to meet any specific requirements.

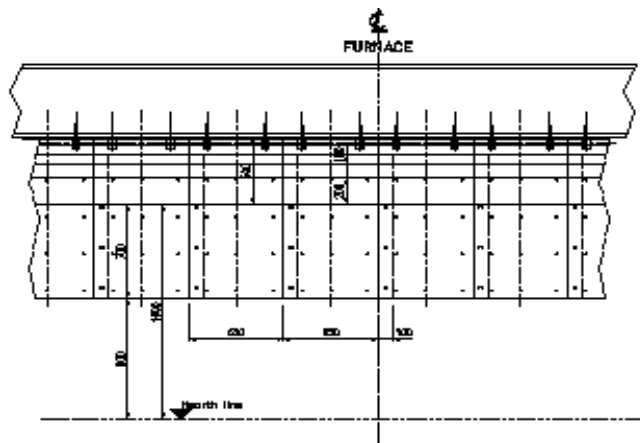
Most of these products are tailored to customer's specifications; please feel free to contact us for any enquiry.

Wir bieten ein großes Sortiment an feuerfesten Textilien an. Darunter befinden sich Gardinen zur Bereichsteilung bei verschiedenen Temperaturzonen, Sicherheitsverkleidungen in Keramikfaser, Schnüre (Glas- und Keramikfaser), Schlauchisolierung und weitere Materialien für diverse Anwendungen.

Der größte Anteil dieser Artikel wird nach kundenspezifischen Vorgaben gefertigt. Sprechen Sie uns zur Erstellung eines spezifisch auf ihre Bedürfnisse ausgerichteten Angebotes an.



BRANDNAME	DESCRIPTION
LBS-160 LBS-143 LBS-126	Customized heat-resistant textiles (e.g.: Curtains)



Fused cast blocks for reheating furnaces
Schmelzgegossene Blöcke für Anwärmöfen
Blocchi elettrofusi per forni da riscaldo



KERSKID is a fusion cast refractory, which has been specially developed for reheating furnace soaking hearts in the steel industry.

KERSKID, which is composed of pure oxides molten in an electric arc furnace, is cast at 1900°C into moulds giving the finished shape of the blocks. After solidification a residual concentration cavity forms in the top part of the block under the casting scar. Outside of this zone, **KERSKID** has a very compact structure, without open porosity. As consequence, the face opposite the casting scar must be used as the working face.

The compactness of **KERSKID** and its crystal structure adapted to reheating furnaces limit the penetration of aggressive agents and, in the majority of cases, avoid slag sticking to the heart. In the case of accidental build-up, **KERSKID** has the advantage of being easily cleaned, hot or cold, without suffering damage because of the weak adherence of the iron oxide.

The **KERSKID** blocks are successfully used as skid rails and for soaking zone bottom of heavy duty ingot pusher-type furnaces (P.T.F.) and they can also be used as supporting elements as lining exit chutes in the modern walking beam furnaces (W.B.F.). The main advantage of **KERSKID** is its resistance of mechanical stress in working conditions.

With its excellent strength **KERSKID** ensures good durability even under hard conditions in bottom and sidewalls of reheating furnaces.

KERSKID ist ein schmelzgegossenes Produkt, das auch für den Einsatz in Herden der Stahlindustrie entwickelt wurde.

KERSKID, welches aus reinen Oxiden besteht, wird in Elektrolichtbogenöfen bei 1900°C geschmolzen, in Formen gegossen und erhalten so ihre endgültige Form. Nach der Verfestigung bildet sich eine Konzentrationshöhle im obersten Teil des Blockes unter der Gießnarbe. Außerhalb dieser Zone hat **KERSKID** eine sehr kompakte Struktur ohne offene Porosität. Dementsprechend wird diese Oberfläche gegenüber der Gießnarbe als Kontaktoberfläche genutzt.

Die hohe Dichte von **KERSKID** und dessen Kristallstruktur verhindern das Eindringen von Schadstoffen in Anwärmöfen. Sein Einsatz verhindert oder minimiert Schlackenanbackungen am Herd. Im Falle eines Schlackenaufbaues, kann dieser relativ einfach von heißer oder kalter Oberfläche entfernt werden.

KERSKID Blöcke werden erfolgreich in Stoßofenherden (P.T.F.) und Hubherden (W.B.F.) unter schwersten Bedingungen eingesetzt.

Der Hauptvorteil von **KERSKID** ist der Widerstand gegenüber mechanischer Belastung.

Mit seinem exzellenten Widerstand kann **KERSKID** eine gute Haltbarkeit unter schweren Bedingungen in Herden und Seitenwänden von Anwärmöfen aufweisen.



BRANDNAME	Typical cristallographic analisys %	Density kg/dm³	Class.Temp. °C	CCS MPA	Expansion at 1150 °C	Chemical composition			
						Al ₂ O ₃	Na ₂ O	ZrO ₂	
KERSKID 80 S	Corundum	40	3	1900	250	0,8%	80,10%	1,15%	5,25%
	Mullite	40							
	Zirconia oxide	5							
	Glassfase	15							
KERSKID 94	Corundum alfa	93	3,15	1900	200	0,6%	94%	1	SiO ₂
	Glassfase	7							4,5%
KERSKID 98	Corundum alfa	90	3,15	1900	250	0,6%	98,50%	0,90%	SiO ₂
	Corundum beta	4							0,40%
	Glassfase	6							

Standard sizes

500 x 200 x 150 mm	500 x 300 x 250 mm	600 x 300 x 200 mm
500 x 300 x 150 mm	500 x 200 x 200 mm	600 x 300 x 300 mm

Other sizes, shapes and grades available on request

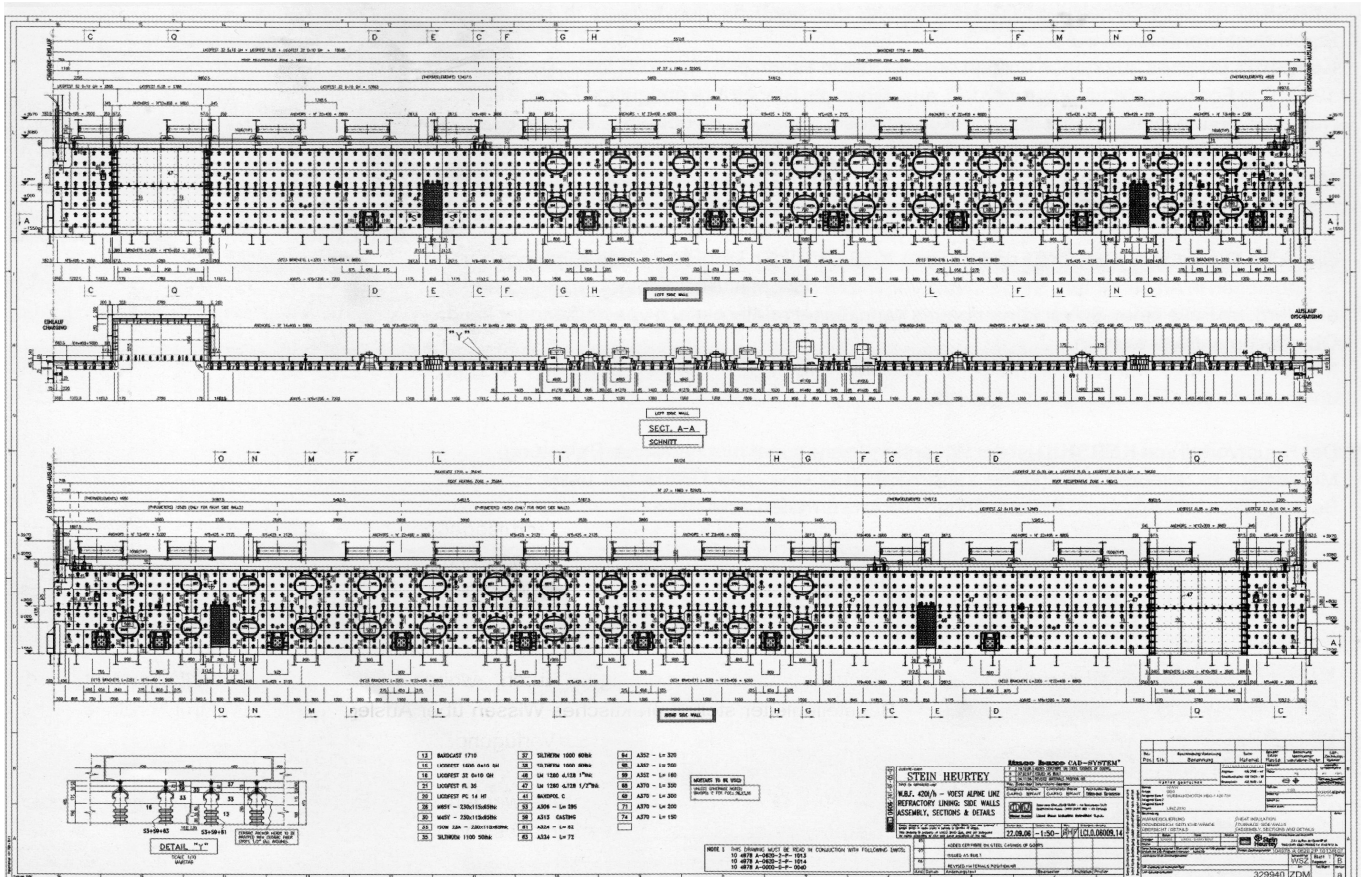
Engineering and supervision Entwicklung und Baustellenleitung Ingegneria e supervisione



The engineering jobs and construction team, which is backed by the associated company **ITE Industrial Technologies and engineering Srl**, provide a full engineering package either for linings and casings, inclusive of Heat flow calculation, bills of material, owner's manual as well as qualified supervision on site.

Konstruktion, Engineering und Baustellenabwicklung wird durch das verbundene Unternehmen **ITE Industrial Technologies and engineering Srl** adgedeckt. Das Team liefert sowohl komplettes Detailengineering für den Stahl- und Feuerfestbau, Wärmeberechnungen, Stücklisten und Betriebsanleitungen, als auch hochqualifizierte Baustellenüberwachung- und leitung.

Il team engineering e costruzioni, supportato dalla consociata **ITE Industrial Technologies and engineering Srl**, fornisce un servizio completo di progettazione per i rivestimenti refrattari e le relative carpenterie. Le prestazioni includono calcoli dei flussi termici, capitolati e distinte materiali, manuali ed istruzioni per l'utilizzatore nonché servizi di supervisione sul campo.



Construction and installation

Konstruktion und Montage

Costruzione e montaggio



A department, with experience in dismantling / installing refractory and insulating materials in heavy industries over the last 20 Years.

Cost-efficiency, dedication to manual work and highly appreciated precision characterize this outstanding operation.

Support staff provides inspections, evaluating each job independently.

Field-Supervisors offer their practical know-how in design and construction of refractory linings, tailored to customers need.

Domestic and international contracts are managed in time, whether on scheduled or emergency shutdowns, from material disposal to manpower availability.

Skilled personnel, using modern installation equipment, work mainly in the field of rolling mills, with all common refractory and/or insulating materials available.



Eine Unternehmen mit 20 Jahren Berufserfahrung in Montage/Demontagearbeiten von feuerfesten Zustellungen und Isolierungen für die Schwerindustrie.

Kostenbewußtsein, solide Handwerksarbeit und Genauigkeit kennzeichnen dieses außerordentliche Unternehmen.

Techniker führen Begehungen durch, wobei jeder Fall individuell beurteilt wird. Baustellenleiter stellen praktisches Wissen über Auslegung und Konstruktion feuerfester Zustellungen kundenspezifisch zur Verfügung.

Nationale und internationale Verträge werden zeitgerecht erfüllt, gleich ob geplanter oder ungeplanter Stillstand, von Materialdisposition bis zur Personalverfügbarkeit.

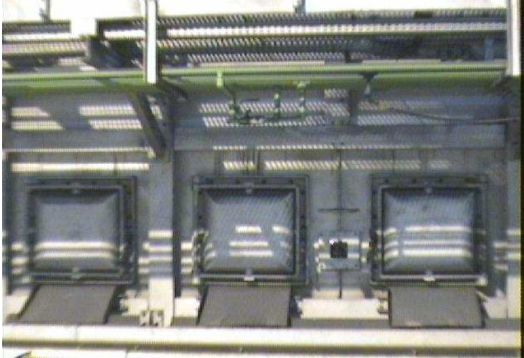
Fundiert ausgebildete Mitarbeiter, unterstützt durch modernste Verarbeitungsgeräte, arbeiten hauptsächlich in Walzwerken, wobei alle herkömmlichen feuerfesten und/oder isolierenden Produkte professionell verarbeitet werden.



Thermography

Termische fotografie

Termografie

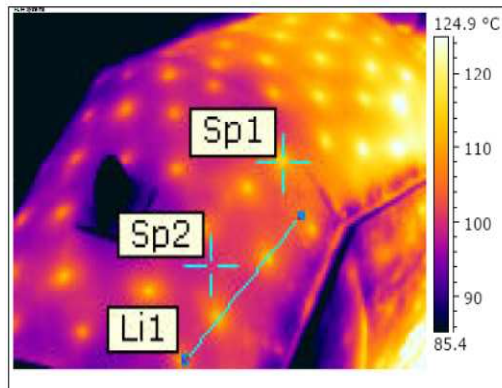
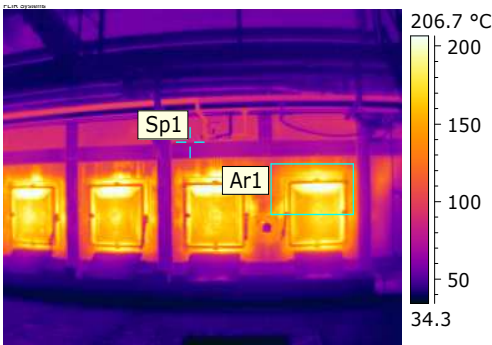


A in-house service of **THERMOGRAPHY** is provided by our licensed technicians; this useful check allows to monitor the heat transfer flow and then to forecast the expected lifetime of the linings.

Expectancy of remaining lining life can be forecast and in such a way it is possible to plan a schedule of preventive maintenance on operating furnaces.

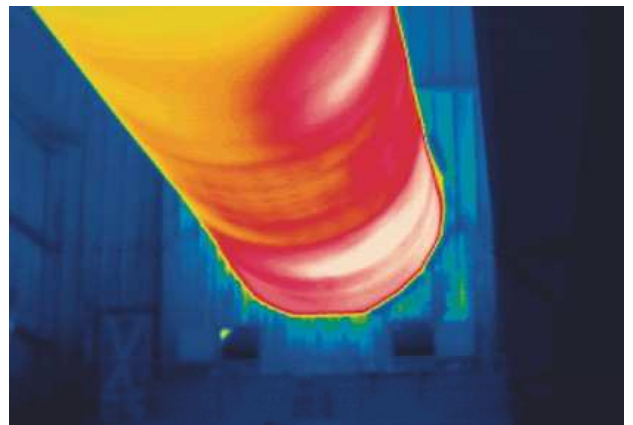
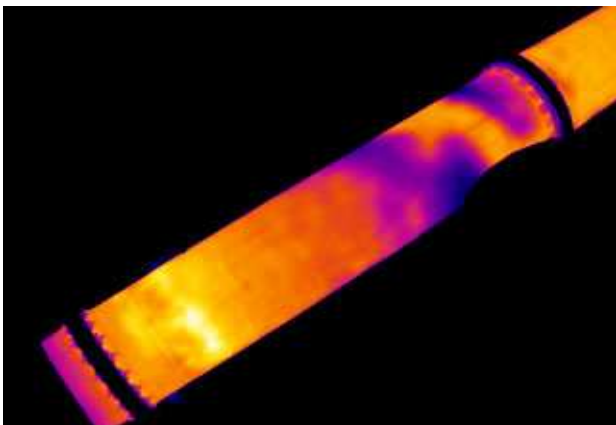
Hauseigene **THERMISCHE FOTOGRAFIE**, durchgeführt von dafür ausgebildeten Technikern; diese sinnvolle Kontrolle ermöglicht die Sichtbarmachung des Wärmedurchgangs und erlaubt Ableitungen zur Lebensdauer von Auskleidungen. Dadurch wird Planung voreilender Instandhaltung bei laufenden Öfen machbar.

I nostri tecnici possono eseguire **TERMOGRAFIE** su impianti dei clienti. Questo servizio consente di monitorare i flussi termici e quindi di prevedere la vita residua del rivestimento., pianificando così le attività di manutenzione preventiva del forno.



Etichetta	Valore
Sp1	115.5 °C
Sp2	99.8 °C
Li1: Max	114.5 °C

Etichetta	Cursore	Min	Max
<input checked="" type="checkbox"/> Li1	-	99.9	114.5





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