

Raw Material





Created in 2009, Trasteel Group has become one of the leading players in the steel industry

Trasteel Group was founded in 2009 as the result of the vision of a group of entrepreneurs and professionals with 40 years of international experience in the steel industry.

Today, Trasteel is a trading and industrial Group active in the steel, energy and metallurgical sectors. Headquartered in Lugano, it has over 900 employees operating in four trading desks and various industrial plants in Europe, Middle East and Asia-Pacific.

Leveraging on the combined experience, the mission of the Group is to provide better, deeper and more flexible services to the whole supply chain.

Since the high quality of the supplied materials is not enough to meet the evermore sophisticated needs of the market, Trasteel Group keeps expanding its horizons by maintaining high dynamism and diversification.

Sustainability and innovation are priorities and key aspects for the Group to focus on. Long-term targets are not an easy challenge to face, but Trasteel is committed to broaden its ESG policies.

+150

products supplied

+1.000

specialists worldwide
and growing



DISCOVER MORE
ABOUT OUR ESG VISION

Trasteel network



+50

markets covered

+4.000

customers



DISCOVER MORE ABOUT
THE STEEL MARKET

● **Headquarters**

Switzerland, Luxembourg

● **Trading Offices**

Lugano, Dusseldorf, Dubai, Shanghai, Bayuquan, Buenos Aires, Istanbul, Goma, Singapore, New York, France, Spain, Finland

● **Industrial Premises**

San Giorgio di Nogaro, Massa, Racconigi, Sesto Al Reghena, Cavallerleone, Lombardore (Italy), Nova Pazova (Serbia), Bayuquan (China), Izmir (Turkey)

● **Markets Covered**

EU, United Kingdom, Turkey, Israel, Serbia, Ukraine, Kazakhstan, Uzbekistan, Azerbaijan, U.A.E., Saudi Arabia, Oman, Brazil, Chile, Colombia, Argentina, Perù, Bolivia, Mexico, USA, Canada, Japan, South Korea, China, Malaysia, Indonesia, Philippines, Vietnam, Thailand, Taiwan, Australia, South Africa, Congo (DRC), Egypt, India, Algeria, Morocco, Tunisia, Pakistan, Norway

Raw material solutions

Trasteel is working since 10 years with some of the major raw materials producers worldwide with a particular focus on China, Pakistan and South Africa. In fact, the business model is based on long-term partnerships with only one selected producer for each material.

In this way Trasteel can control and supervise the entire production chain through its own staff present in the partners' plants. The priority is given to the quality of the materials and of the logistics services, ensuring that the products are delivered timely to the final customers as per contractual requirements.

The goal of the Group is to establish long-lasting relationships with its stakeholders thanks to its reliability and financial soundness, providing a tailor-made support for different needs and situations.

The growing leadership position gained by Trasteel is the result of years of effort and investments, R&D carried out by its technical experts and especially the stability of the supply even in difficult and tough market conditions.

Caustic Calcined Magnesia

Dead Burnt Magnesia

Fused Magnesia One and Double Step

Fused and Sintered Spinel

Rotary and Shaft Kiln Bauxite

Brown Fused Alumina

White Fused Alumina

Tabular Alumina

Calcined Alumina

Mullite

Chamotte

Silicon Carbide

Flake Graphite

Amorphous Graphite

Expandable Graphite

Calcium Silicate

Calcium Aluminate

Fluorspar

Wollastonite

Chromite Sand

Magnesia

CAUSTIC CALCINED MAGNESIA	CCM90		CCM92		CCM95	
	Typical	Limits	Typical	Limits	Typical	Limits
MgO	91.2 %	90.0 % min	92.6 %	92.0 % max	95.8 %	95.0 % min
SiO ₂	3.00 %	3.50 % max	2.50 %	3.00 % max	0.80 %	1.00 % max
CaO	2.10 %	2.50 % max	1.90 %	2.20 % max	1.50 %	1.70 % max
Al ₂ O ₃	0.85 %	1.00 % max	0.65 %	0.75 % max	0.25 %	0.30 % max
Fe ₂ O ₃	0.85 %	1.00 % max	0.75 %	1.00 % max	0.80 %	0.90 % max
Loss on Ignition	4.50 %	5.50 % max	4.50 %	5.00 % m	4.50 %	5.00 % max
Grain Distribution	120#, 200#, 325#					

DEAD BURNT MAGNESIA	DBM90		DBM92		DBM97	
	Typical	Limits	Typical	Limits	Typical	Limits
MgO	91.5 %	90.0 % min	92.5 %	92.0 % max	97.5 %	97.0 % min
SiO ₂	4.20 %	4.50 % max	3.50 %	4.00 % max	0.60 %	0.80 % max
CaO	2.20 %	2.50 % max	1.80 %	2.00 % max	1.30 %	1.70 % max
Al ₂ O ₃	1.20%	1.50 % max	0.85 %	0.85 % max	0.20 %	0.30 % max
Fe ₂ O ₃	1.20 %	1.50 % max	1.20 %	1.50 % max	0.60 %	0.80 % max
Loss on Ignition	0.50 %	0.80 % max	0.50 %	0.60 % max	0.10 %	0.30 % max
Bulk Density	3.16 g/cm3	3.14 g/cm3	3.16 g/cm3	3.15 g/cm3	3.28 g/cm3	3.27 g/cm3
Grain Distribution	200#, 0-1/1-3/3-6/3-15/0-30 mm					

FUSED MAGNESIA ONE STEP	FM96		FM97		FM97.5	
	Typical	Limits	Typical	Limits	Typical	Limits
MgO	96.2 %	96.0 % min	97.3 %	97.0 % max	97.7 %	97.5 % min
SiO ₂	1.00 %	1.20 % max	0.55 %	0.75 % max	0.35 %	0.50 % max
CaO	2.30 %	2.50 % max	1.35 %	1.60 % max	1.00 %	1.20 % max
Al ₂ O ₃	0.27%	0.30 % max	0.25 %	0.30 % max	0.25 %	0.30 % max
Fe ₂ O ₃	0.85 %	1.00 % max	0.65 %	0.75 % max	0.45 %	0.60 % max
Loss on Ignition	0.15 %	0.30 % max	0.10 %	0.30 % max	0.05 %	0.15 % max
Bulk Density	3.44 g/cm3	3.41 g/cm3	3.50 g/cm3	3.48 g/cm3	3.52 g/cm3	3.48 g/cm3
C/S	2	1.8-2	2.5-3	2 min	2.5-3	2 min
Grain Distribution	200#, 0-1/1-3/3-6/0-40 mm					

FUSED MAGNESIA DOUBLE STEP	FM97-LC		FM97.5-LC		FM97.8-LC	
	Typical	Limits	Typical	Limits	Typical	Limits
MgO	97.2 %	97.0 % min	97.6 %	97.5 % max	97.9 %	97.8 % min
SiO ₂	0.65 %	0.80 % max	0.55 %	0.60 % max	0.50 %	0.55 % max
CaO	1.50 %	1.70 % max	1.45 %	1.60 % max	1.20 %	1.30 % max
Al ₂ O ₃	0.15%	0.20 % max	0.15 %	0.20 % max	0.15 %	0.20 % max
Fe ₂ O ₃	0.65 %	0.80 % max	0.55 %	0.60 % max	0.50 %	0.55 % max
Loss on Ignition	0.15 %	0.20 % max	0.15 %	0.20 % max	0.15 %	0.20 % max
Bulk Density	3.50 g/cm3	3.48 g/cm3	3.50 g/cm3	3.48 g/cm3	3.52 g/cm3	3.50 g/cm3
C/S	2-2.5	2 min	2.2-2.5	2 min	2.2-2.5	2 min
Grain Distribution	200#, 0-1/1-3/3-6/0-40 mm					

Bauxite

SHAFT KILN BAUXITE	75-78		82		85	
	Typical	Limits	Typical	Limits	Typical	Limits
Al ₂ O ₃	78.0 % min	75.0 % min	86.3 %	82.0 % min	85.5 %	85.0 % min
SiO ₂	-	-	11.5 %	12.0 % max	7.80 %	8.00 % max
TiO ₂	3.20 % max	3.50 % max	4.35 %	4.50 % max	4.35 %	4.50 % max
Fe ₂ O ₃	1.90 % max	2.00 % max	1.80 %	2.00 % max	2.25 %	2.50 % max
CaO+MgO	0.65 % max	0.80 % max	0.65 %	0.80 % max	0.65 %	0.70 % max
Na ₂ O+K ₂ O	0.45 % max	0.60 % max	0.45 %	0.60 % max	0.45 %	0.50 % max
Moisture	0.20 % max	0.30 % max	0.35 %	0.50 % max	0.45 %	0.50 % max
Loss on Ignition	0.15 % max	0.20 % max	0.20 %	0.30 % max	0.25 %	0.30 % max
Bulk Density	2.85 g/cm3	2.80 g/cm3	2.76 g/cm3	2.70 g/cm3	2.83 g/cm3	2.80 g/cm3
Grain Distribution	325#, 0-1/1-3/3-5/0-40 mm					

ROTARY KILN BAUXITE	85		86		87		88	
	Typical	Limits	Typical	Limits	Typical	Limits	Typical	Limits
Al ₂ O ₃	85.5 %	85.0 % min	86.3 %	86.0 % min	87.2 %	87.0 % min	88.1 %	88.0 % min
SiO ₂	7.30 %	7.50 % max	7.20 %	7.50 % max	6.80 %	7.00 % max	5.80 %	6.00 % max
TiO ₂	4.30 %	4.50 % max	4.15 %	4.50 % max	3.80 %	4.00 % max	3.80 %	4.00 % max
Fe ₂ O ₃	1.90 %	2.00 % max	1.80 %	2.00 % max	1.70 %	1.80 % max	1.70 %	1.80 % max
CaO+MgO	0.65 %	0.70 % max	0.60 %	0.70 % max	0.60 %	0.70 % max	0.42 %	0.50 % max
Na ₂ O+K ₂ O	0.40 %	0.50 % max	0.38 %	0.40 % max	0.38 %	0.40 % max	0.35 %	0.40 % max
Moisture	0.40 %	0.50 % max	0.25 %	0.30 % max	0.25 %	0.30 % max	0.23 %	0.30 % max
Loss on Ignition	0.15 %	0.20 % max	0.15 %	0.20 % max	0.10 %	0.15 % max	0.10 %	0.15 % max
Bulk Density	3.17 g/cm3	3.15 g/cm3	3.23 g/cm3	3.20 g/cm3	3.27 g/cm3	3.25 g/cm3	3.28 g/cm3	3.27 g/cm3
Grain Distribution	325#, 0-1/1-3/3-5/0-40 mm							

Chamotte

CHAMOTTE	Typical	Limits
Al ₂ O ₃	40.0 %	40.0-42.0 %
Fe ₂ O ₃	1.45 %	1.50 % max
SiO ₂	56.0 %	55.0-57.0 %
TiO ₂	2.62 %	2.70 % max
CaO	0.25 %	0.30 % max
Na ₂ O	0.12 %	0.15 % max
MgO	0.12 %	0.15 % max
Grain Distribution	230#, 325#, 0-1/1-3/3-5 mm	

Alumina

BROWN FUSED ALUMINA	FIXED FURNACE		TILTING FURNACE	
	Typical	Limits	Typical	Limits
Al ₂ O ₃	95.3 %	95.0 % min	95.3 %	95.0 % min
Fe ₂ O ₃	0.27 %	0.30 % max	0.27 %	0.30 % max
SiO ₂	1.42 %	1.50 % max	0.92 %	1.00 % max
TiO ₂	2.86 %	3.00 % max	2.86 %	3.00 % max
Bulk Density	3.82 g/cm ³	3.80 g/cm ³	3.82 g/cm ³	3.80 g/cm ³
Grain Distribution	0-1/1-3/3-5 mm			

WHITE FUSED ALUMINA	FIXED FURNACE		TILTING FURNACE	
	Typical	Limits	Typical	Limits
Al ₂ O ₃	99.2 %	99.0 % min	99.2 %	99.0 % min
Fe ₂ O ₃	0.07 %	0.10 % max	0.07 %	0.10 % max
SiO ₂	0.16 %	0.20 % max	0.16 %	0.20 % max
Na ₂ O	0.34 %	0.40 % max	0.26 %	0.30 % max
Bulk Density	3.52 g/cm ³	3.50 g/cm ³	3.52 g/cm ³	3.50 g/cm ³
Grain Distribution	0-0.1/0-0.5/0-1/1-3/3-5 mm			

TABULAR ALUMINA	Typical	Limits	CALCINED ALUMINA	Typical	Limits
Al ₂ O ₃	99.4 %	99.2 % min	Al ₂ O ₃	99.5 %	99.3 % min
SiO ₂	0.07 %	0.12 % max	Fe ₂ O ₃	0.02 % max	0.05 % max
Fe ₂ O ₃	0.16 %	0.15 % max	Na ₂ O	0.20 % max	0.40 % max
Fe metal	0.34 %	0.30 % max	SiO ₂	0.05 % max	0.15 % max
Bulk Density	3.52 g/cm ³	3.50 g/cm ³	Bulk Density	3.96 g/cm ³	3.93 g/cm ³
Grain Distribution	325#, 0-1/1-3/3-6/6-12 mm		Grain Distribution	325#, 500#, 800#	

MULLITE	55-58		58-62		68-72	
	Typical	Limits	Typical	Limits	Typical	Limits
Al ₂ O ₃	57 %	55.0-58.0 %	60.0 %	58.0-62.0 %	70.0 %	68-72.0 %
SiO ₂	0.65 % max	0.75 % max	1.10 %	1.20 % max	1.10 %	1.20 % max
TiO ₂	0.10 % max	0.15 % max	0.32 %	0.40 % max	0.28 %	0.35 % max
Bulk Density	2.58 g/cm ³	2.55 g/cm ³	2.68 g/cm ³	2.65 g/cm ³	2.77 g/cm ³	2.75 g/cm ³
Grain Distribution	120#, 200#, 325#, 0-1/1-3/3-5 mm					

Silicon Carbide

SILICON CARBIDE	SIC90		SIC95		SIC97	
	Typical	Limits	Typical	Limits	Typical	Limits
SiC	91.5 %	90.0 % min	96.0 %	95.0 % min	97.4 %	97.0 % min
Free C.	1.55 %	2.00 % max	0.45 %	0.80 % max	0.65 %	0.80 % max
Fe ₂ O ₃	2.45 %	2.80 % max	0.75 %	1.50 % max	0.35 %	0.60 % max
SiO ₂	3.15 %	3.50 % max	2.00 %	2.50 % max	0.90 %	1.50 % max
Al ₂ O ₃	1.75 %	2.00 % max	1.10 %	1.50 % max	0.70 %	1.00 % max
Grain Distribution	325#, 200#, 0-1/1-3/3-5/5-50 mm					

Spinel

SPINEL	FUSED		SINTERED	
	Typical	Limits	Typical	Limits
MgO	32.0 %	30.0-35.0 %	30.0 %	28.0-32.0 %
Al ₂ O ₃	64.0 %	63.0 % min	60.0 %	58.0-62.0 %
SiO ₂	0.55 %	0.60 % max	2.80 %	3.00 % max
CaO	0.70 %	0.80 % max	1.40 %	1.50 % max
Fe ₂ O ₃	0.25 %	0.30 % max	1.90 %	2.00 % max
Bulk Density	3.42 g/cm ³	3.40 g/cm ³	3.14 g/cm ³	3.10 g/cm ³
Grain Distribution	0-1/1-3/3-6/0-30 mm			

Graphite

FLAKE GRAPHITE	+195	+895	EXPANDABLE GRAPHITE	90	
	Limits	Limits		Limits	Limits
C	95.0 % min	95.0 % min	Fixed C	92.0 %	90.0 % min
Ash	5.00 % max	5.00 % max	Ash	9.10 %	10.0 % max
Moisture	0.50 % max	0.50 % max	Moisture	0.89 %	1.00 % max
Grain Distribution	100#	800#	Expansion Rate (cm ³ /g)	122	120
			Starting Temp. (°C)	254	250
			Grain Distribution	50-180 microns	

AMORPHOUS GRAPHITE	67		80	
	Typical	Limits	Typical	Limits
S	69.5 %	67.0 % min		
Fixed C	0.42 %	0.45 % max	87.0 %	85.0 % min
Moisture	1.50 %	2.00 % max	0.76 %	1.00 % max
Ash	14.5 %	17.0 % max		
Volatile Materials	4.5 %	6.00 % max		
Grain Distribution	170#, 200# 230#, 325#			

Chromite Sand

CHROMITE SAND	Typical
Cr ₂ O ₃	46.9 %
SiO ₂	0.53 %
FeO	26.0 %
Cr/Fe	1.56 %
MgO	10.2 %
Al ₂ O ₃	14.7 %
P	0.003 %
MnO	0.0028 %
CaO	0.26 %
AFS	40-45, 40-50, 45-50, 45-55

Calcium

CALCIUM ALUMINATE	CaAl35-50	CaAl45-50	CaAl49-41	CaAl60-30
	Limits	Limits	Limits	Limits
Al ₂ O ₃	51.0 – 55.0 %	45.0 – 50.0 %	41.0 – 45.0 %	60.0 % min
CaO	33.0 – 35.0 %	40.0 – 42.0 %	49.0 – 54.0 %	30.0 %
SiO ₂	7.00 % max	5.00 % max	3.80 % max	0.80 % max
MgO	4.00 % max	2.00 % max	2.00 % max	8.00 – 13.0 %
TiO ₂	3.00 % max	2.00 % max	2.80 % max	0.15 % max
Fe ₂ O ₃	2.50 % max	2.00 % max	1.80 % max	0.40 % max
Bulk Density		1.70-2.90 g/cm3		1.50 g/cm3 min
Grain Distribution	1-6/5-25/			

CALCIUM SILICATE	Limits
Si	60.0 % min
Ca	30.0 % min
Fe	7.00 % max
Al	1.50 % max
Carbon	1.00 % max
Moisture	0.50 % max
Grain Distribution	0.1-1 mm

FLUORSPAR	Limits
CaF ₂	97.0 % min
CaO	0.50 % max
Fe ₂ O ₃	0.50 % max
SiO ₂	2.00 % max
S Total	0.20 % max
C Total	0.50 % max
H ₂ O	0.50 % max
Loss on Ignition	1.00 % max
Bulk Density	1.60 – 1.90 g/cm3
Grain Distribution	200#

WOLLASTONITE	44-009		46-0044		
	Typical	Limits	Typical	Limits	
	SiO ₂	51.2 %	49.0 % min	50.5 %	49.0 % min
	CaO	44.8 %	44.0 % min	46.0 %	43.0 % min
	MgO	1.60 %	2.00 % max	1.00 %	1.50 % max
	Al ₂ O ₃	0.60 %	1.50 % max	0.50 %	0.80 % max
	Fe ₂ O ₃	0.30 %	1.00 % max	0.20 %	0.30 % max
	Loss on Ignition	1.15 %	2.00 % max	1.50 %	2.00 % max
	Bulk Density	0.85 – 1.00 g/cm3		0.85 – 1.00 g/cm3	
	Grain Distribution	170#, 200#, 325#, 1250#, 2000#			



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