



INSULATION POWDER

For the Steel Industry

Insulation Powder

Mould flux powder (mould powder, casting powder, mould flux slag) is one of the most influential and critical factors during the continuous casting.

Before the development of the synthetic mould powders, rape-seed oil and fly-ash based powders were used to lubricate and protect the melt.

However, none of them could work as efficient as the synthetic powders.

Today, many types of mould powders with different compositions and shapes are produced to suit the casting of diverse steel grades and sizes.

The choice of powder requires a deep knowledge of the casting process, steel composition, desired and feasible preferences and characteristics for the process and product.

Tundish Cover is added on top of the liquid steel in the tundish during casting.

Tundish cover is a very important parameter for temperature control during casting.

It also protects the liquid steel from atmospheric exposure and can assist in inclusion absorption from liquid steel, and therefore assist in cleaner steel production.

Thermal Ladle Cover is added on top of the liquid steel and slag in the steel ladle.

It can be added at any time of the ladle refining process, as required.

It forms a thermal barrier on top of the liquid steel, and helps to prevent heat loss, that can lead to increased energy costs, as well as unplanned casting stoppages due to unplanned freezing during long casting sequences.

It also improves yield through prevention of large ladle sculls.

After we determine your production conditions and product grade , we provide the exact granular powder while we consider **QUALITY, EFFICIENCY** and **PRICE** for **OPTIMUM** solutions .



This product is a granulated powder for the mould lubrication, avoiding heat loss at the mould and absorbing the inclusions out of the liquid steel.

Product Name
ALT-KT-01-020
GRANULE

Chemical Analysis (Mass%)

SiO ₂	29-31.5	F	3-5
CaO	20-23	Li ₂ O	<0.5
MgO	<3	B ₂ O ₃	<0.5
Al ₂ O ₃	5-8		
Fe ₂ O ₃	<3	C _{free}	13-16
MnO ₂	<1	CO ₂	5-7
K ₂ O	<2	H ₂ O	<0.5
Na ₂ O	3-6	LOI	18-21

Measured Physical Properties

Softening point	1110 °C	± 30 °C
Melting point	1120 °C	±30 °C
Fluidity point	1145 °C	±30 °C
Partical size	<500 microns	max 1 mm
Viscosity	na	dPa*s (Poise)
Bulk density	0.75 g/cm ³	± 0.1

Calculated Physical Properties

Basicity (CaO/SiO ₂)	0.7	± 0.05	
	1400 °C	1300 °C	1200 °C
Viscosity dPa*s (Poise)	8.6	19.7	50.7

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for the mould lubrication, avoiding heat loss at the mould and absorbing the inclusions out of the liquid steel.

Product Name
ALT-KT-02-010
GRANULE

Chemical Analysis (Mass%)

SiO ₂	38-42	F	4-6
CaO	23-25.5	Li ₂ O	<0.5
MgO	<2	B ₂ O ₃	<0.5
Al ₂ O ₃	8-11		
Fe ₂ O ₃	<3	C _{free}	2-4
MnO ₂	<1	CO ₂	4-6
K ₂ O	<3	H ₂ O	<0.5
Na ₂ O	5-8	LOI	5.5-8.5

Measured Physical Properties

Softening point	1080 °C	± 30 °C
Melting point	1100 °C	±30 °C
Fluidity point	1120 °C	±30 °C
Partical size	<500 microns	max 1 mm
Viscosity	na	dPa*s (Poise)
Bulk density	0.75 g/cm ³	± 0.1

Calculated Physical Properties

Basicity (CaO/SiO ₂)	0.65	± 0.05	
	1400 °C	1300 °C	1200 °C
Viscosity dPa*s (Poise)	8.8	20.2	52.3

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for the mould lubrication, avoiding heat loss at the mould and absorbing the inclusions out of the liquid steel.

Product Name
ALT-KT-03-010
GRANULE

Chemical Analysis (Mass%)

SiO ₂	32-36	F	6-8
CaO	27-30	Li ₂ O	<0.5
MgO	<3	B ₂ O ₃	<0.5
Al ₂ O ₃	3-6	C _{free}	2.5
Fe ₂ O ₃	<2	CO ₂	5-7
MnO ₂	<1	H ₂ O	<0.5
K ₂ O	<3	LOI	<10
Na ₂ O	7.5-9.5		

Measured Physical Properties

Softening point	1060 °C	± 30 °C
Melting point	1085 °C	±30 °C
Fluidity point	1150 °C	±30 °C
Partical size	<500 microns	max 1 mm
Viscosity	na	dPa*s (Poise)
Bulk density	0.65 g/cm ³	± 0.1

Calculated Physical Properties

Basicity (CaO/SiO ₂)	0.785	± 0.05	
	1400 °C	1300 °C	1200 °C
Viscosity dPa*s (Poise)	1.2	2.2	4.2

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for the mould lubrication, avoiding heat loss at the mould and absorbing the inclusions out of the liquid steel.

Product Name
ALT-KT-05-005
GRANULE

Chemical Analysis (Mass%)

SiO ₂	29-32	F	7-9
CaO	36-40	Li ₂ O	<1
MgO	<3	B ₂ O ₃	<0.5
Al ₂ O ₃	2-4	TiO ₂	<0.5
Fe ₂ O ₃	<2	C _{free}	2-5
MnO ₂	<2	CO ₂	5-8
K ₂ O	<3	H ₂ O	<0.5
Na ₂ O	7-9	LOI	<10

Measured Physical Properties

Softening point	1050 °C	± 30 °C
Melting point	1115 °C	±30 °C
Fluidity point	1150 °C	±30 °C
Partical size	<500 microns	max 1 mm
Viscosity	na	dPa*s (Poise)
Bulk density	0.8 g/cm ³	± 0.1

Calculated Physical Properties

Basicity (CaO/SiO ₂)	1.25	± 0.05	
	1400 °C	1300 °C	1200 °C
Viscosity dPa*s (Poise)	0.38	0.58	52.3

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for avoiding heat loss at the tundish and cleaning inclusions through absorption.

Product Name
ALT-TC-01-020
GRANULE

Chemical Analysis (Mass%)

SiO ₂	36-40	C _{free}	12-16
CaO	6-10	CO ₂	<3
MgO	<3		
Al ₂ O ₃	9-13	H ₂ O	<0.5
Fe ₂ O ₃	<5	LOI	18-22
Na ₂ O + K ₂ O	<5		

Measured Physical Properties

		Tolerance
Melting point	1210 °C	± 30 °C
Partical size	<500 microns	max 1 mm
Bulk density	0.7 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for avoiding heat loss at the tundish and cleaning inclusions through absorption.

Product Name
ALT-TC-02-010
GRANULE

Chemical Analysis (Mass%)

SiO ₂	46-50	C _{free}	12-16
CaO	<5		
MgO	<2		
Al ₂ O ₃	18-22	H ₂ O	<0.5
Fe ₂ O ₃	<2	LOI	18-22
Na ₂ O + K ₂ O	<5		

Measured Physical Properties

		Tolerance
Melting point	1220 °C	± 30 °C
Partical size	<500 microns	max 1 mm
Bulk density	0.7 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for avoiding heat loss at the tundish and cleaning inclusions through absorption.

Product Name
ALT-TC-02-010 MX
GRANULE

Chemical Analysis (Mass%)

SiO ₂	39-47	C _{free}	12-16
CaO	<7		
MgO	<2		
Al ₂ O ₃	14-23	H ₂ O	<0.5
Fe ₂ O ₃	<5	LOI	18-22
Na ₂ O + K ₂ O	<5		

Measured Physical Properties

		Tolerance
Melting point	1220 °C	± 30 °C
Partical size	<200 microns	
Bulk density	0.7 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for avoiding heat loss at the tundish and cleaning inclusions through absorption.

Product Name
ALT-TC-02-020
GRANULE

Chemical Analysis (Mass%)

SiO ₂	41-45	C _{free}	12-16
CaO	<5		
MgO	<2		
Al ₂ O ₃	15-19	H ₂ O	<0.5
Fe ₂ O ₃	<2	LOI	18-22
Na ₂ O + K ₂ O	<5		

Measured Physical Properties

		Tolerance
Melting point	1210 °C	± 30 °C
Partical size	<500 microns	
Bulk density	0.7 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for avoiding heat loss at the tundish and cleaning inclusions through absorption.

Product Name
ALT-TC-02-020 MX
GRANULE

Chemical Analysis (Mass%)

SiO ₂	31.5-39.5	C _{free}	12-16
CaO	<7		
MgO	<2		
Al ₂ O ₃	13-22	H ₂ O	<0.5
Fe ₂ O ₃	<4.5	LOI	20-30
Na ₂ O + K ₂ O	<5		

Measured Physical Properties

		Tolerance
Melting point	1220 °C	± 30 °C
Partical size	<200 microns	
Bulk density	0.75 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a granulated powder for avoiding heat loss at the tundish and cleaning inclusions through absorption.

Product Name
ALT-TC-03-01 MX
GRANULE

Chemical Analysis (Mass%)

SiO ₂	32-42		
CaO	32-45		
MgO	5-15		
Al ₂ O ₃	7-16	H ₂ O	<0.5
Fe ₂ O ₃	<1.5	LOI	<2
Na ₂ O + K ₂ O	<1		

Measured Physical Properties

		Tolerance
Melting point	1300 °C	± 50 °C
Partical size	<200 microns	
Bulk density	0.7 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a powder for decreasing the heat loss from the ladle.

Product Name
ALT-PT-01-005
GRANULE

Chemical Analysis (Mass%)

SiO ₂	47-52	TiO ₂	
CaO	10-14	C _{free}	2-4
MgO	<5		
Al ₂ O ₃	10-15	H ₂ O	<0.5
Fe ₂ O ₃	<7.5	LOI	<5
Na ₂ O + K ₂ O	<3		

Measured Physical Properties

		Tolerance
Melting point	1220 °C	± 30 °C
Partical size	<200 microns	
Bulk density	0.8 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production

This product is a powder for decreasing the heat loss from the ladle.

Product Name
ALT-TC-02-020 MX
GRANULE

Chemical Analysis (Mass%)

SiO ₂	45-48	TiO ₂	<1
CaO	9.5-11.5	C _{free}	5-6.5
MgO	2.5-4.5		
Al ₂ O ₃	11-13		
Fe ₂ O ₃	4.5-6	H ₂ O	<0.5
Na ₂ O + K ₂ O	<5	LOI	<7

Measured Physical Properties

		Tolerance
Melting point	1220 °C	± 30 °C
Partical size	<200 microns	
Bulk density	0.75 g/cm ³	±0.1

Shelf Life : In original and dry storage conditions maximum 6 months from production





ALTech Group have a global footprint



- Sales Office and Registered Entity
- Sales Representation
- Manufacturing Plant
- Warehouse

altech@altechgroup.net
www.altechgroup.net

