SYNTIOX

COATING

Characteristic

SYNTIOX is a white, aluminium phosphate-based protective coating containing fine TiO_2 pigments,developed for high-performance protection of refractory linings in highly stressed areas of casting systems in aluminium foundries. It is specifically intended for use on linings of melting and holding furnaces, degassing boxes, and filtration units. It forms an effective barrier against chemical attack from molten metal and significantly facilitates subsequent surface cleaning.

Application instructions

- Stir thoroughly before use and maintain homogeneity throughout application.
- Apply undiluted or dilute with clean water if necessary.
- Suitable for application by brush or spray gun.
- Recommended application: 1 or 2 coats on clean and dry refractory surface.
- Can be applied to hot surface – the coating will not blister, crack, or spall.
- Fast drying with minimal production downtime.

Storage & shelf life

The minimum shelf life is 9 months from the date of manufacture. Protect from frost and direct sunlight. Keep containers tightly closed when not in use.

Packaging

- ✓ Supplied in PE buckets
- ✓ Alternative packaging options available upon request.

Advantages

- ✓ Easy application and fast drying
- ✓ Resistant to cracking and blistering

SILKON270_20

CASTABLE REFRACTORY

Characteristic

SILKON270_20 is refractory castable based on SiC and calcium silicate inert to liquid aluminium and its alloys. It is a high strength material offering high resistance to erosion and mechanical damage. SILKON270_20 shapes are pre- fired supplied ready for installation.

Application

- Filter boxes
- Funnels
- Impact Cores

Composition

- AL2O3 - 35%
- SiO2 - 50%

  CaO - 5 %
- SiC - 8%

Physical Properties

- Bulk density 2260kg/m3
- Cold crushing strength 25Mpa
- Maximum service temperature 1050°C

Advantages

- ✓ Thermal shock resistant
- ✓ Non-wetting

Advantages

- ✓ Extremely durable
- ✓ Dimensionally stable

SILKON270_10T

CASTABLE REFRACTORY

Characteristic

SILKON270_10T is refractory castable based on SiC and calcium silicate inert to liquid aluminium and its alloys. It is a high strength material offering high resistance to erosion and mechanical damage. SILKON270_10T shapes are pre-fired supplied ready for installation.

Application

- Furnace Treshold
- Funnels
- Degassing launders
- Impact Cores

Composition

- AL2O3 - 35%
- SiO2 - 51%
- SiC - 8%
- CaO - 5 %

Physical Properties

- Bulk density 2300kg/m3
- Cold crushing strength 40Mpa
- Maximum service temperature 1050°C

Advantages

- ✓ Thermal shock resistant
- ✓ Non-wetting

Advantages

- ✓ Extremely durable
- ✓ Dimensionally stable

SILKON270_5

CASTABLE REFRACTORY

Characteristic

SILKON270_5 is refractory castable based on SiC and calcium silicate inert to liquid aluminium and its alloys. It is a high strength material offering high resistance to erosion and mechanical damage. SILKON270_5 shapes are pre-fired supplied ready for installation.

Application

- Furnace Treshold
- Funnels
- Degassing launders
- Impact Cores

Composition

- AL2O3 - 35%
- SiO2 - 50%
- SiC - 12%
- CaO - 2%

Physical Properties

- Bulk density 2400kg/m3
- Cold crushing strength 40Mpa
- Maximum service temperature 1300°C

Advantages

- ✓ Thermal shock resistant
- ✓ Non-wetting

Advantages

- ✓ Extremely durable
- ✓ Dimensionally stable

SILKON220

CASTABLE REFRACTORY

Characteristic

SILKON220 is calcium silicate and bauxite based castable refractory inert to liquid aluminium and its alloys. It is a high strength material offering high resistance to erosion and mechanical damage. SILKON220 shapes are pre-fired supplied ready for installation.

Application

- Transfer Launders
- Casting launders
- Funnels
- Filter boxes

Composition

- AL2O3 - 57%
- SiO2 - 32%
- CaO - 7%

Physical Properties

- Bulk density 2100kg/m3
- Cold crushing strength 40Mpa
- Maximum service temperature 1300°C

Advantages

- ✓ Dimensionally stable
- ✓ Thermal shock resistant

Advantages

- ✓ Non-wetting

SILKON 150

CASTABLE REFRACTORY

Characteristic

SILKON150 is refractory castable based on calcium silicate inert to liquid aluminium and its alloys. It is a insulating material offering high resistance to erosion and mechanical damage. SILKON150 shapes are pre-fired supplied ready for installation.

Application

- Transfer Launders
- Casting launders
- Runners
- Spouts
- Dams

Composition

- AL2O3 - 40%
- SiO2 - 33%
- CaO - 23%

Physical Properties

- Bulk density 1500kg/m3
- Cold crushing strength 11Mpa
- Thermal conductivity at 800°C 0,46 W/mK

Advantages

- ✓ Dimensionally stable
- ✓ Thermal shock resistant
- ✓ Non-wetting

Advantages

- ✓ Insulating
- ✓ Durable

KEROLITE

ISOLATION MATERIAAL

Characteristic

Insulating material KEROLITE as a thermal insulation between launders and supporting steel structure is used. It provides perfect placing, fixing and thermal insulation of the transfer system components (launders, filter boxes, funnels, bowls).

Performance

- Low thermal conductivity
- Easy application
- High thermal stability

Properties

- Bulk density: 870 kg/m3
- Thermal conductivity: 0.15 W/m K
- Basic components: Al2O3, SiO2, P2O5
- Bond type: chemical-hydraulic

Aplication

It is necessary to mix both components well to keep perfect homogeneity (1 bucket + 1 PE bag). It is recommended to mix these components 4 minutes. Then you can apply it by pouring. The processing time is 15 minutes. It gets stiff after 30 minutes.

Packaging

- ✓ PE buckets - The liquid component
- ✓ PE bags – the solid component

Storage

It is necessary to store in dry, closed and tempered places.

ALUSEPP 3000

REFRACTORY COATING

Characteristic

Pink-white, Al2O3 containing water based coating. It is recommended to use as a high performance protection coating to act as a barrier for surfaces that may come into contact with molten aluminium as launders and casting moulds.

Instructions

It is necessary to mix the coat well before use and keep the homogeneity during use. To take maximum advantage of its unique physical characteristic ALUSEPP 3000 should be applied, as supplied or diluted by water. It can be applied by brush or spray. Brush out normally in one or two layers. Application by spray gun is perfectly satisfactory if the equipment is in good order and particularly if the container includes an agitator. ALUSEPP 3000 should be applied to hot faces - the coating will not blister, crack or spall and drying times are short.

Protection of launders

Apply to hot launders - cca 40 minutes after finishing casting cycle. Application by brush in one or two layers. Dilution - no dilution or 1:1 with water.

Aplication

It is necessary to mix both components well to keep perfect homogeneity (1 bucket + 1 PE bag). It is recommended to mix these components 4 minutes. Then you can apply it by pouring. The processing time is 15 minutes. It gets stiff after 30 minutes.

Protection of casting

Apply to hot moulds cca 20 minutes after finishing casting cycle. Application by spray gun. Dilution 1:1 or 1:2 with water.

Advantages

- ✓ High aluminium content giving good protection, Low direct cost
- ✓ Easy drying. Any available method can be used, will not crack or blister.

Packaging & Safety

- ✓ There are no health hazards associated with ALUSEPP 3000 in normal use.
- ✓ ALUSEPP 3000 is available in PE buckets.

ALCAT 70

SEPARATING POWDER

Characteristic

ALCAT 70 is separating powder. Its main function is to protect ceramic transfer system components from liquid metal.

Performance

- Launders & Runners
- Funnels & Spouts
- Filter Boxes
- Dross Pans
- Bowls

Properties

- Al2O3 : min. 69%
- CaO : max. 30%
- Classification temperature: 1000°C
- Grain size 0 - 0.1 mm

Aplication

Material ALCAT 70 is applied by powdering on the surface of components that are exposed to liquid metal. ALCAT 70 forms a thin protective layer on the surface of the transfer system components, which protects it from liquid metal and allows easy cleaning after the casting cycle.

Packaging

- ✓ Paper drums
- ✓ PE buckets

Storage

It is necessary to store the material in dry and closed places.