



BMW Steels Ltd.

An ISO 9001 Certified Company



WEAR SEAL – CBC™

CBC™ mortar series of compounds are trowel lay onto an anchoring expanded mesh. CBC™ is a mortar bonded product range; contains extremely hard sintered compounds like Alumina and Silicon Carbide as fillers in CBC™ Linings. CBC™ contains micro and nano-components to ensure high degree of densification by close the pores of the mortar element.

CBC™ is a range of extremely high strength compounds providing superior protection against moderate to severe wear conditions - available as both low and high temperature products, catering for process temperatures up to 100°C and 900°C respectively.

The high hardness fillers of sintered compounds incorporated in the CBC™ matrix offer extremely good sliding wear resistance. CBC™ has a hard sintered Alumina/Bauxite/Silicon Carbide base. CBC™ compounds are available with a variety of bonding agents, depending on the application.

CBC™ has an advantage for all the grades about flexibility of use. CBC™ can be employed to install new linings with difficult profiles and on the roofs too using few simple lining tools. Recommended CBC™ lining thickness depends on the job requirements and application conditions. The thickness of the lining can be recommended after technical evaluation of BMW at the lining site. Curing time of CBC™ series of compounds is 48 hours.

Application areas of plant equipment and system components lined with CBC™:

- Drag Chin Conveyors;
- Pneumatic Conveying systems for Coal, Cement and Slag ;
- Dust Extraction Equipment; Hydro Cyclones, Cyclones;
- Grinding Mill internal lining for Classifier, mill body and difficult shapes.
- Static and Dynamic Separators; Chutes etc.

CBC™ provides excellent protection against high erosive wear at temperatures up to 100°C to 900 Deg C depending on the composition of mortar and filler compounds.

Quantity Requirement:

2.6 – 2.8 Kg weight of CBC™ Lining per sq m/mm thickness depending on the grade of CBC™.

Standard Lining requirements:

- Install Mesh.
- Mix Dry Compound (consisting of mortar, metallic/poly fibre & Sintered Alumina granules/added with Silicon Carbide granules).
- Add water & BMW- S.Chem and mix.
- Trowel Mix onto Mesh.

A planetary mixer is used for mixing the ready mix powder added with S.Chem and water. A significant change in consistency of the dry CBC™ material (from dry to plastic) must be observed within few minutes from addition of CBCTM chemical added with water. The CBC™ has to be laid on the Expandable Wire mesh already fitted on the surface of application.

CBC™ 100 Wear Resistant Linings:

CBC™ 100 provides moderate wear protection against high erosive wear at temperatures up to 110°C.

Chemical Composition:

- Al₂O₃ %: 10 max
- CaO %: 20 max.
- SiO₂ %: 80max

PROPERTIES of CBC™ 100:

- Density 2.6 gm/cc
- Compressive strength: 1400 Kg/cm²
- Flexural strength: 600 kg/cm²
- Casting shrinkage: 0.2%
- Max. Service Temperature: 100°C
- Deep Abrasion Resistance: 0.16 gm.
- Jet Erosion Test: 0.07 gm

CBC™ 500 Wear Resistant Linings:

They provide excellent protection against high erosive wear at temperatures up to 400°C.

Chemical Composition:

- Al₂O₃ %: 60 max
- CaO %: 10 max
- SiO₂ %: 30 max

PROPERTIES of CBC™ 500:

- Density 2.65 gm/cc
- Compressive Strength: 1600 Kg/cm²
- Flexural strength: 700 kg/cm²
- Casting shrinkage: 0.22%
- Max. Service Temperature: 400°C
- Deep Abrasion Resistance: 0.14 gm
- Jet Erosion Test: 0.06 gm

CBC™ 900 Wear Resistant Linings:

They are employed to provide excellent protection against high erosive wear at temperatures up to 1000°C.

Chemical Composition:

- Al₂O₃ %: 50 max
- SiC %: 20 max
- CaO %: 10 max
- SiO₂ %: 30max

PROPERTIES CBC™ 900:

- Density 2.70 gm/cc
- Compressive strength 2000 Kg/cm²
- Flexural strength 900 kg/cm²
- Casting shrinkage: 0.20%
- Max. service temperature 1000°C
- Abrasion resistance: 0.13 gms
- Jet Erosion Test: 0.05 gms

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