Ceramold Clean Instructions for use

Ceramold Clean is a paste-like, refractory repair compound, primarily used in Aluminium casting. Ceramold Clean can be used to repair cracks, pack joints, and line simple / small launder sections.

Repairing Cracks

The following steps describe the process for repairing a crack in a refractory part, e.g., a launder segment or a filter box liner.

1. The area to be repaired should be clean and free of dust and metal residues. Ceramic and very smooth surfaces may be roughened to enhance the adhesion of the Ceramold Clean.
2. In case the crack to be repaired is very thin, it may be widened by making a V-shaped cut with an appropriate cutting disc to make the repair easier.
3. The surface to be repaired should be gently moistened with water to enhance the adhesion of the Ceramold Clean to the surface.
4. While using the product, it is recommended to wear rubber gloves. Ceramold Clean can either be applied by the help of a spatula or by hand. To prevent the material from sticking to the gloves or the spatula, it is suggested to moisten them with water prior to use. To achieve a smooth surface, a wet sponge or soft cloth can be used.
5. Note: The maximum thickness per layer of the product is approx. 2 cm (0.75”). A new layer can be applied after the previous layer of the product has fully dried.
6. Dry each layer at approx. 110-130°C (230 - 265°F) for 15-20 minutes.

Joint Packing

The joints between two refractory components, e.g., launder segments or filter box and outlet launder, can be carried out in three different ways. The best way to proceed depends on the original packing of the joint.
Check all joints for cracks or wash-outs after each casting. Damaged joints must be repaired immediately.

Joint Packing using sealing Blakite and Ceramold Clean

Using Ceramold Clean and Blakite is the standard way applied by Drache for joint packing.

1. Apply a uniform layer of Blakite to both faces of refractory segments.
2. Push one refractory segment towards the other. The final distance between the segments should be approx. 3-4 mm.
3. Remove excess Blakite refractory mortar from the surface of the refractory segments.
4. Let the Blakite dry for at least two hours.
5. After the Blakite is dried, remove 3-5 mm of Blakite from the joint, e.g. by the help of a scraper. Make sure the surface of the refractory segments is not damaged.
6. Fill the remaining gap with Ceramold Clean or an equivalent repair compound.
7. Now smooth the surface of the Ceramold Clean (e.g. using damp cloth or similar) so that it flushes with the bottom of the refractory piece.

Drache Umwelttechnik GmbH
Werner-v.-Siemens-Str. 24-26
D-65582 Diez / Germany

Tel.: +49 (0) 64 32 / 607 - 0
Mail: mail@drache-gmbh.de
Web: www.drache-gmbh.de

8. Dry the Ceramold Clean at approx. 110–130°C, e.g. using a hot air blower or a burner with a small / low flame.

Joint Packing using sealing rope and Blakite

The way of using sealing rope and Blakite should only be applied in case the refractory segments are equipped with a groove for the sealing rope.

1. Apply a uniform layer of Blakite to both faces of the refractory shapes.
2. Place the sealing rope in the groove of the refractory segment, attaching it to the Blakite.
3. Now push the segment against the second one. The remaining gap between the segments should be approx. 4–5 mm.
4. Let the Blakite dry for at least two hours.
5. After the Blakite is dried, remove 3-5 mm of Blakite from the joint, e.g. with the help of a scraper. Make sure the surface of the refractory segments is not damaged.
6. Fill the remaining gap with Ceramold Clean or an equivalent repair compound.
7. Now smooth the surface of the Ceramold Clean (e.g. using damp cloth or similar) so that it flushes with the bottom of the refractory piece.
8. Dry the Ceramold Clean at approx. 110–130°C, e.g. using a hot air blower or a burner with a small / low flame.

Joint packing using stuffed fibers and Ceramold Clean

The method using stuffed fiber and Ceramold Clean should only be used for segments which cannot be pushed against each other, e.g. a fitting segment which must be installed while lining / relining the launder.

1. Check all joints for cracks or wash-outs after each casting. Damaged joints must be repaired immediately.
2. Filling the joint: Fill the space between the two refractory parts with suitable fiber material. Make sure the fiber material is resistant to molten Aluminium (e.g., Superwool 607 or equivalent). Compress the fiber lightly by hand. Keep the upper 10 mm of the joint open.
3. Fill the remaining 10 mm of the joint with Drache Ceramold Clean.
4. Now smooth the surface of the Ceramold Clean (e.g., using a damp cloth or similar) so that it is flush with the bottom of the refractory segment.
5. Dry the Ceramold Clean at approx. 110–130 °C, e.g., using a hot air blower or a burner with a small / low flame.

Launder Section Lining

Ceramold Clean can also be used to line small / short launder segments. Please note that pre-cast launder shapes e.g., made from Drache Fused Silica have a much longer service time than launders lined with Ceramold Clean. However, Ceramold Clean can be used for emergency repairs or to line launder segments for R+D setups.

The steps for lining a launder are like the steps to repair cracks.

1. The area to be repaired should be clean and free of dust and metal residues. Very smooth surfaces may be roughened to enhance the adhesion of the Ceramold Clean.
2. While using the product it is recommended to wear rubber gloves. Ceramold Clean can either be applied with the help of a spatula or by hand. To prevent the material from sticking to the gloves or the spatula, it is suggested to moisten them with water prior to use.

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3. Note: The maximum thickness per layer of the product is approx. 2 cm (~ 0.75”). A new layer can be applied after the previous layer of the product has fully dried.
4. To achieve a smooth surface a wet sponge or soft cloth can be used.
5. Dry each layer at approx. 110-130°C (230 - 265°F) for approx. 25 minutes.

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