



**Brenco Surface Engineering Pty. Ltd.**  
**ABN: 47 867 814 294**  
**Innovative Coating Technology Since 1946**  
**BRENCOAT® BR-4®**  
**Non Wetting Ceramic**



**BR-4®**

A non wetting ceramic, BR-4® was originally developed for coating internals of molten Aluminium syphoning systems to protect from metal growth, freezing and blockage from transferring molten Aluminium from pot to crucible. Component life is extended by up to 7 times, when compared to the current system used in smelters today. Temperature range of up to 1000°C.

**Benefits of BR-4®**

1. Minimum iron transfer.
2. Non-wetting to Molten Aluminium, Bath and Dross.
3. Thermal barrier advantages. When tapping, the aluminium does not change temperature, therefore the product will not freeze inside the tapping device.

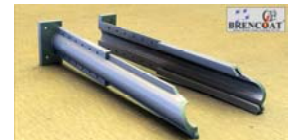


**Short list of parts coated with BR-4®**

1. Bath Crucible Lids (Hydro, New South Wales, Australia and Comalco, Riotinto, Queensland, Australia)
2. Dross conveyor (Tomago Aluminium, New South Wales, Australia)
3. Crucible Cleaning Shute (Tomago)
4. Dross and Bath Skimmers (Tomago)
5. Mixing Rotor (Tomago)
6. Robotic Dross skimmers (Portland Aluminium, Victoria, Australia)
7. Furnace Dams (Portland)
8. Casting Wheel (Comalco)
9. Mixing shafts (Portland)
10. Goose Necks (Comalco)
11. Sprue Bushings (Aluminium Wheel Casting)
12. Ladles (Aluminium Casting Industry)



**Crucible Lid with BR-4®**



**Syphone Tip with BR-4®**

**Advantages over competitors Non-wetting TBCs.**

1. Impact resistance. The coating will resist impact to a very high level from day to day handling.
2. Coating resists extreme thermal shock and thermal cycling.
3. Coating wear resistance. By far the greatest advantage as BR-4® will outlast all other non wetting coatings by up to 7 times, as has been shown in our field trials. There is a visible effect on the surface of the coating that allows the removal of the component before failure, saving the part for re-coating.



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