Product Catalogue

ALBA

ALBA CP-1760

Ultra-High-Temperature Alumina Ceramic Adhesive and Sealer

One-part | Water-based | No organic volatiles

ALBA CP-1760 is a ready-to-use, one-part ceramic adhesive formulated with alumina filler and a water-based inorganic binder. It is designed for bonding, sealing and insulating ceramic and metal components in high-temperature equipment. After controlled drying and curing, it forms a hard, stable inorganic bond.

1760°C	1–4 h	1-Part
Stated maximum temperature	Air-set time	One-part and ready to use

Key Performance Features

Inorganic alumina system
Water-based formulation with alumina filler for severe thermal environments.

Multi-substrate bonding
Suitable for ceramic-to-ceramic, ceramic-to-metal and selected metal-to-metal bonding.

Environmental resistance
After curing, provides excellent resistance to moisture and alkalis, and good resistance to acids.

Electrical insulation
For applications requiring both high-temperature resistance and electrical insulation.

Recommended Applications

Ceramic components	Ceramic and metal bonding	Metal joints
Assembly and sealing of dense ceramics, insulators and ceramic textiles	Heaters, thermal chambers, joints and high-temperature assemblies	Selected metal-to-metal applications and high-temperature thread locking

Designed for thin bonding and sealing in high-temperature applications

Technical Data

Typical product values for preliminary selection and application planning

Property	Typical value
Product type	One-part, water-based alumina ceramic adhesive and sealer
Color	White
Stated maximum temperature	1760°C (3200°F)
Viscosity	40,000-80,000 cP
Specific gravity	2.05-2.15 g/cm³
Coefficient of thermal expansion	7.7×10^{-6} /°C
Air set	1-4 hours
Initial heat cure	93°C for 2 hours
Recommended application temperature	10-32°C
Storage temperature	4-32°C
Shelf life	6 months in unopened containers under recommended storage conditions

Application Procedure

1	**Surface preparation** Etch, sandblast or lightly oxidize smooth surfaces, then remove all grease, dust and contamination. Pre-wet porous surfaces with a compatible water-based thinner.
2	**Mixing and adjustment** The one-part product may settle during storage; mix thoroughly before use. If viscosity adjustment is required, add no more than 20% by weight of a compatible dedicated thinner.
3	**Thin bond-line application** Apply a thin coat to both surfaces and hold the parts under uniform pressure. At service temperature, the preferred bond-line thickness is approximately 50-200 microns.
4	**Drying and curing** Air dry for 1-4 hours, then cure at 93°C for 2 hours as listed. Increase temperature gradually; if blistering occurs, reduce the heating rate.

Storage, Safety and Limitations

Storage and safe handling

Keep the container tightly closed and prevent water evaporation. Provide suitable ventilation, wear gloves and eye protection, and review the product Safety Data Sheet before use.

Important limitations

This product is designed for thin bond lines and is not a substitute for thick repair putty. Cured ceramic adhesives are slightly porous; joint design and substrate materials must be matched to the required mechanical strength.

Note: 1760°C is the stated maximum temperature limit. Final performance must be validated under actual service conditions.