

High Temperature Ceramic-Metallic Adhesive Paste 950°F / 510°C to 2300°F / 1260°C

These ceramic-metallic adhesive pastes are used to seal joints and repair metal defects in cast aluminum, cast iron, steel and stainless steel.

Resists temperatures to 2300F; used resurface and repair metal defects, reduces scrap, is machinable, strength increases with temperature, easily painted or powder coated, easy and safe to use.

High Temperature Ceramic-Metallic Pastes						
Part Number	UCMP-1959	UCMP-2850	UCMP-3000	UCMP-4500	UCMP-7200	UCMP-7500
Type	Inorganic	Organic	Inorganic	Inorganic	Inorganic	Inorganic
Filler	Stainless	Ceramic Fiber	Aluminum	Ceramic	Stainless	Iron Oxide
Max Temp F/C	2000 / 1093	950 / 510	1400 / 760	2300 / 1260	2000 / 1093	1600 / 871
Specific Gravity	1.9	1.09	1.8	1.27	1.50	2.90
Consistency	Paste	Paste	Paste	Paste	Paste	Paste
Components	1	1	2	1	1	1
Mix Ratio	N / A	N / A	2:1	N / A	N / A	N / A
Air Set, hours	2-4	N / A	2-4	1-2	2-4	2-4
Heat Cure, temp/hrs	200 / 3	400 / 1 or 225 / 6	160 / 1-2	200 / 1	200 / 2-4	200 / 3
Color	Gray	Silver Gray	Light Gray	Gray-Brown	Dark Gray	Black
Shelf Life, months	6	6	6	6	6	6
Storage, F	40-90	40-90	40-90	40-90	40-90	40-90
Packaging	Pt, Qt, Gal, 5 Gal	11oz cartridge	Pt, Qt, Gal, 5 Gal	Pt, Qt, Gal, 5 Gal 11oz cartridge	Pt, Qt, Gal, 5 Gal	Pt, Qt, Gal, 5 Gal
Price (Pt)	\$ 188.64	\$ 66.27 (MOQ = 2)	\$ 188.64	\$ 172.84 Pt \$ 53.77 11oz (MOQ = 2)	\$ 188.64	\$ 188.64

For Quart size, price is 1.8 x Pint price. For Gallon size, price is 3.3 x Pint price.

- UCMP-1959.** For vertical surfaces and applications to ½" thick. Repairs cast iron, steel and stainless steel parts to 2000F.
- UCMP-2850** Sealing High Temperature Flanges, Joints to 950F, 750 psi. Cures into a tough pliable inert material.
- UCMP-3000** For applications to ½" thick. Repairs cast aluminum parts to 1400F.
- UCMP-4500** PriAprily used to seal boiler doors and molten metal systems. Easy to apply and removable. Use up to 2300F.
- UCMP-7200** For applications to 3/8" thick. Repairs cast iron, steel and stainless parts to 2000F.
- UCMP-7500** For applications to ¼" thick. Repairs cast iron and steel parts to 1600F.

Applications: Afterburners, Boilers, Castings, Exhaust Stacks, Flanges, Furnaces, Headers, Incinerators, Manifolds, Molds and Dies, Ovens, Heat Exchangers, Pumps, Blowers, Piping, Ducting, Turbines.

Please Note: These products are custom produced to order in small batches and all sales are final.

UCMP Ceramic Metallic Paste Application Procedures

Surface Preparation

All surfaces must be free of oil, grease, dirt, corrosives or other contaminants before application. Porous metal castings should be baked at high temperature to burn off embedded oils. Smooth metal surfaces should be abrasive blasted with a coarse media to a minimum SP-10 near white blast (0.001" minimum profile) for best results.

Mixing

All products should be mixed thoroughly to a uniform consistency prior to use. Product viscosities may be reduced by adding a maximum of 5-10% by weight of the appropriate thinner. Thinner may be ordered by adding a "-T" to the product number (eg. 1959-T). The mix ratio for UCMP-3000 is 2.0 parts powder to 1.0-1.5 parts liquid by weight. This ratio will produce the consistency of a thick paste. UCMP-3000 will outgas slightly after mixing and it is recommended that the mixture be limited to the amount required for a specific application. Store mixed material at room temperature in a plastic container that is approximately twice the mixture volume. Allow to outgas for 24 hours. Remix contents thoroughly prior to use. Note that mixture will not begin to harden in a closed container for over 24 hours. Hardening will initiate when mixture is removed from container and exposed to air.

Application

UCMP products may be applied using a spatula, putty knife or caulk gun. For cross-sections greater than 1/8" - 1/4" multiple applications should be made to avoid blistering. Cross-sections for all products should not exceed 1/2" - 3/4" (3/8" maximum for UCMP-7200).

Curing

The following instructions are guidelines for curing. Alternative cure times may be appropriate depending on the size of the application.

UCMP-1959:

- 1) Air dry for 2 hours at room temperature and up to 4 hours for thick cross-sections.
- 2) Heat cure at 200 °F for 3 hours.
- 3) For multiple applications, air set for 1-2 hours between coats, then heat cure at 200 °F for 3-4 hours after the last coat.

UCMP-2850:

- 1) This product can be cured in service at the operating temperature of the equipment.
- 2) For curing before service, heat cure the joint without pressure at 400 °F for 30-60 minutes or 225 °F for 4-6 hours.

UCMP-3000:

- 1) A heat cure is not required for cross-sections less than 1/8" thick. Air dry at room temperature for a minimum of 2-4 hours prior to use.
- 2) A heat cure is recommended for cross-sections greater than 1/8" thick Air dry at room temperature for a minimum of 2-4 hours, then heat cure at 160 °F for 1-2 hours.
- 3) After curing, this product can be sanded to achieve a bright aluminum appearance.

UCMP-4500:

- 1) This product dries at room temperature and cures in service at the operating temperature of the equipment.

UCMP-7200:

- 1) Air dry at room temperature for a minimum of 5-7 hours, longer for thick cross-sections.
- 2) A heat cure is not required if the use temperature exceeds 400 °F. Otherwise, heat cure at 200 °F for 3 hours.

UCMP-7500:

- 1) Air dry at room temperature for a minimum of 1 hour, longer for thick cross-sections.
- 2) Heat cure at 200 °F for 2 hours or air dry at room temperature for 16 hours prior to use.

Storage

Unopened containers have a six month shelf life when stored at room temperature. Make sure opened containers are capped securely to prevent evaporation. Place a plastic film in between the cap and container to prevent air leakage. The container may be inverted periodically to minimize settling. Store container between 40 °F and 90 °F.

Safety

Read Material Safety Data Sheet carefully before using any of the above products. Prolonged skin contact should be avoided due to possible irritation. In the uncured state, materials can be washed from the skin with a mild soap and water. If any material contacts eyes, flush continuously with water or neutralizing solutions, then consult a physician immediately