

AA-BOND K5NA

Ablative Thermal Compound Adhesive

Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-BOND K5NA is a three-part thermal compound, cures at room temperature widely used for critical aerospace applications because of its superior ablative properties.

AÂ-BOND K5NÂ is smooth paste, trowellable compound is recommended by NASA for use on the solid rocket boosters that launch the Agency's Space Shuttles, and is specified for closeout and patching of the boosters' thermal protection systems.

AA-BOND K5NA cures at room temperature, and develops strong bonds to most metals, ceramics, glass and glass fabrics, and many rigid plastics. The fully cured compound has excellent dimensional stability over a wide temperature range, and provides superior low temperature mechanical and impact resistance, excellent resistance to weathering, ozone and moisture.

PRODUCT DESCRIPTIONS:

Appearance Light Brown

Cure Type Room temperature or Heat cure Benefits Room temperature and heat cure Bonds variety of metal substrates

Heat resistant

Mix Ratio by weight 100/75/25 Resin/Hardener/Filler

Substrates Metals, metal substrates, glass and glass fabrics,

ceramics and many rigid plastics Etc.

Operating Temperature -40 to 135 °C

Filling voids, fairing out wires, tubing and other

surface protrusions on hypersonic re-entry bodies,

Typical nose cones, and aircraft engines.

Application Cushioning, impact absorbing material around

explosive charges.

UNCURED PROPERTIES:

Specific Gravity, mixed 0.60 ± 0.06

Viscosity @25°C Mixture: Thick Paste

Reactive solids contents, % 100
Pot Life 30 minutes

CURING SCHEDULE:

25°C (77 °F) 24-48 hours 65°C (149 °F) 3-5 hours

MISC PROPERTIES:

Shelf life 1 year Hardness, Shore D 29 Tensile Strength, psi 250-450 Elongation, % 30-45

GENERAL INFORMATION:

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

HOW TO USE:

- 1. Carefully clean and dry all surfaces to be bonded.
- 2. Pour the container part B (hardener) into the container part A (resin) and mix until get a homogenous color. Then pour the container (filler) and mix until the filler is dispersed uniformly.
- AA-BOND K5NA has a 30 minutes pot life after all the tree parts are mixed.
- 4. Apply the mixed product to the prepared surfaces.
- 5. AA-BOND K5NA develops most of its major mechanical and structural properties after 24 hours at room temperature (overnight @ 25°C). Longer cures up to 72 hours maybe required for fully matured bonds. The mechanical properties can also be obtained more rapidly by curing from 3 to 5 hours at 65°C when higher cure temperatures are possible.

AVAILABILITY

This epoxy can be supplied in many different packages.

Atom Adhesives

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