

Kondux™ 7756 A/B

Electrically & Thermally Conductive Epoxy Adhesive

Kondux™ 7756A/B are silver-filled, electrically and thermally conductive epoxy adhesive. It provides excellent bond strength to metals, glass, ceramics, circuit boards, and many plastics. Kondux™ 7756A/B is a 2 part adhesive with a non-flowing paste consistency. It cures at room temperatures or can be rapidly cured with heat. The cured adhesive has very good chemical and environmental resistance and provides excellent mechanical strength.

Kondux™ 7756A/B has been optimized for exceptional electrical and thermal performance in a general purpose system. See our separate datasheet for Kondux™ 7756A/C for a long work-life heat cured version of the same system. In addition, many other variations on the 7756 formulation are available including: thicker, thinner, or more flowable versions; faster or slower setting versions, and versions with higher heat resistance, more flexibility, etc. Please contact us for assistance if you are interested in these type of variants.

TYPICAL APPLICATIONS

- Solder replacement
- Bonding Conductive Plastics
- RFI/EMI Shielding and Grounding

HANDLING PROPERTIES

<u>Kondux™ 7756A</u>	<u>VALUE</u>	<u>TEST METHOD</u>
Visual Appearance	Silver-Gray Paste	Visual
Viscosity, Part A, @ 25°C	Thixotropic Paste	ASTM D-2393
Density, Part A	3.50 g/cm ³	ASTM E-201

<u>Kondux™ 7756B</u>	<u>VALUE</u>	<u>TEST METHOD</u>
Visual Appearance	Clear Amber liquid	Visual
Viscosity, Part B, @ 25°C	70 – 120 cps	ASTM D-2393
Density, Part B	0.99 g/cm ³	ASTM E-201

Mix Ratio:	100A:3B parts by weight	
Viscosity Mixed @ 25°C	Non-flowing paste	ASTM D-2393
Pot life (100 grams) @ 25°C	~45 minutes	Gardner Gel timer
Density Mixed, g/cm ³	3.25	ASTM E-201
Time to achieve Handling Strength @ 25°C	12 – 16 hours	

Recommended Cure Schedules: 24 hours at 25 °C **or** 1 hour at 65 °C **or** 30 minutes at 100°C. Many other cure schedules are possible. Please contact us to discuss alternatives.

For optimum heat and chemical resistance, the adhesive may be additionally post cured for 2-4 hours at the highest expected use temperature.

PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Silver-Gray	
Shore D Hardness	88D	ASTM D-2240
Lap Shear Strengths @ various Test Temperatures:		ASTM D-1002
	<u>Test Temperature</u>	<u>Shear Strength</u>
	-40°C / -40°F	1060 psi
	25°C / 77°F	1200 psi
	40°C / 104°F	1120 psi
	60°C / 140°F	720 psi
	82°C / 180°F	480 psi
Suggested Temperature Range of Use:	-40°C to +130°C	
NASA Outgassing:		ASTM E 595
	Total Mass Loss (TML)	< 0.40%
	Collectible Volatile Condensable Material (CVCN)	< 0.05%

NOTE : Typical Properties determined using Kondux™ 7756A/B cured for 24 hours @ 25°C and then post cured for 2 hours @ 100°C. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES:

Kondux™ 7756 part A may separate during shipment or storage, re-mix thoroughly in its original container prior to use. Once homogeneous, weigh Part A and Part B in the recommended ratio as accurately as possible into a clean mixing container. Always use weighing equipment having accuracy in proportion to the amounts being weighted. Blend by using a spatula or stirring stick for 2-3 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture.

Apply the adhesive to clean, dry surfaces. accurately weigh the desired quantity of 7756A and 7756B into a clean mixing container. Kondux™ 7756A/B can be applied using a spatula, stiff brush, roller, squeegee, or knife. It can also be loaded into a syringe and dispensed through a dispensing needle for fine control. Apply to all surfaces to be bonded and then join the surfaces together and secure. In most applications only even contact pressure is required to create a good bond.

The adhesive may now be cured at room temperature or with heat as indicated above. If time allows, it may be helpful to allow the adhesive to set at room temperature for 2 -4 hours prior to heat curing as this will ensure that the gelation of the adhesive happens in the most slow and ordered manner possible. This step tends to reduce curing shrinkage and may reduce curing stress on the bonded parts.

STORAGE GUIDELINES:

Store this material in a clean, cool and dry environment in its tightly closed original container. Products may settle or separate slightly during storage and should be thoroughly re-mixed prior to use. Avoid extended exposure to high humidity. Tightly re-seal after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

HANDLING PRECAUTIONS:

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

PERSONAL HYGIENE:

Kondux™ 7756A

WARNING! May cause eye irritation. Prolonged or repeated skin contact may cause irritation, may cause allergic skin reaction. Harmful if inhaled or swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

Kondux™ 7756B

WARNING! May causes skin and eye irritation. May cause allergic skin and respiratory reactions. Harmful if inhaled or swallowed. Do NOT get in eyes, on skin, or clothing. Wear safety glasses and gloves when handling. Wash contaminated skin and clothing thoroughly after handling. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep containers closed when not in use. Do NOT take internally.

FIRST AID

In case of contact:

Skin – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

Eyes – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

Inhalation - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Ingestion - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

DISCLAIMER:

IMPORTANT: The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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